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CONTENTS

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25th Anniversary Series

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BRONSON MUSEUM

This is the Society's museum, 5th Floor of the 8 North Main Street Building, Attleboro, Mass. — Museum hours are from 9:30 to 4:30, Mondays, Tuesdays, and Thursdays. For special arrangements to visit on other days, contact the Director, Maurice Robbins, or the Curator, William S. Fowler by mail at the Society Office, Bronson Museum, Attleboro, Mass.

The Museum includes exhibits of artifacts and seven dioramas portraying man's prehistoric occupation of New England. The displays are arranged so as to show man's development through four culture stages, from early post glacial times.

The most recent diorama extends 15 feet across the front of the museum. It depicts an Archaic village of seven large and unique wigwams as indicated by their foundations, excavated at Assowampsett Lake by the Cohannet Chapter. Human figures to scale make the scene come alive and help create what unquestionably is an outstanding addition to our ever growing museum displays.

TWENTY-FIFTH ANNIVERSARY

The Massachusetts Archaeological Society is celebrating twenty-five years of progress from small beginnings. The anniversary has been marked by publication of a classification of stone implements, as the first number of Volume 25 of the Society Bulletin. In this issue is illustrated as complete a showing of various implement types, as research in this area, up to the present time, has made available.

Following publication of this first number have appeared site reports and accounts of important archaeological discoveries by Society members, appearing in Volume 25, No. 2 of the Bulletin.

Finally, the Anniversary Committee in charge has outlined in the last two Bulletin numbers a historic review emphasizing the Society's success, and a comprehensive report of the resultant scientific accomplishments of its members. It is hoped that these will serve as an effective base to inspire another quarter-of-a-century, that will not only match the first, but may surpass it in goals accomplished.

ANNIVERSARY COMMITTEE:

MAURICE ROBBINS
BENJAMIN L. SMITH
JANET WILDER
JESSE BREWER
WILLIAM S. FOWLER, *Chairman*

CHARTER MEMBERS

It is important to recognize the charter members of this Society, as it is of any organization, which has not only survived but grown to sizable proportions over a twenty-five year span. These few dedicated individuals had the initiative that it takes to organize the mechanics for archaeological group research in the formation of the Massachusetts Archaeological Society; and their efforts have not been in vain. On the contrary, they have brought together both professionals and amateurs in a united effort to unearth the prehistory of the Northeast, especially as it pertains to the central area of New England. This foresight in starting a movement for controlled excavation of aboriginal camp sites, involving persistent dissemination of archaeological lore and research procedure to Society members, has mushroomed into an active and ever-spreading search for evidence. This has been carried on, not only by Chapter groups, but by certain members, who have become fired with a desire to learn more by controlled digging about the ancient past, and the people who once occupied New England. A perusal of the following pages will serve to convince anyone that an immense amount of information has already been brought to light, with new discoveries being continually anticipated. Let it be said, then, that this Society has amply justified in more ways than one the foresight of its organizing group of charter members:

°Mrs. Florence Boltz
Jesse Brewer
°Edward Brooks
°Miss Louise Brooks
Donald F. Brown
John C. Brown
Ripley P. Bullen
Mrs. Ripley P. Bullen
Douglas S. Byers
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James R. Hammond
Henry Hornblower, II
Ralph Hornblower, Jr.
°William J. Howes
Frederick Johnson
°Roscoe Johnson
Miss Mary Lee
Mrs. Charles Ogilvie
°Wallace B. Ordway
Frederick P. Orchard
Maurice Robbins
S. Forbes Rockwell, Jr.
Benjamin L. Smith
James Wallace Smith
Burley Swan
°Howard Torrey
°William W. Whiting
°Roger H. Wilson

°Charter members who are known to be deceased.

1939 — HISTORY IN REVIEW — 1964

Janet Wilder

Just as Indians once banded together for mutual protection and betterment, so the Massachusetts Archaeological Society was brought into being 25 years ago by a small group of 38 persons, who had a mutual interest in the pre-history of New England.

According to Maurice Robbins, who became the first President of the Society, the concept of such a society was not that of any one individual. It seems to have been in the minds of many persons, who were simply waiting for some group willing to take upon itself the task of calling a meeting of interested people. As a result, in collaboration with Douglas S. Byers and Frederick Johnson of the faculty of Phillips Andover Academy, the meeting was called.

Robbins recounts: "In December of 1938, such a group met at the Museum of the Robert S. Peabody Foundation at Phillips Academy, Andover, Mass., to discuss the possibilities. This self-appointed body took upon itself the calling of a more formal meeting of a larger number of persons. A letter, outlining the proposed organization and setting a time for a meeting, was mailed to a selected list of persons known to be interested in archaeology. On March 25, 1939, nearly all those bidden gathered at Phillips Academy in Andover, and decided to attempt the organization of a society. Temporary officers were chosen, a constitution and by-laws prepared and accepted, and a second meeting appointed for April 3, 1939. Thus was our Society born."

The objects of the Society, as stated in the preamble to the constitution were, and remain to this day, as follows: "To stimulate the study of archaeology, particularly in Massachusetts; to promote scientific research into archaeological problems; to conserve archaeological sites, data and artifacts; to assist in the dissemination of archeological information; to substitute, through education, intelligent study for careless and misdirected archaeological activity; to prevent the collection of archaeological specimens for commercial purposes; to serve as a bond among all students of archaeology; and to foster a more rational public understanding of the aims and limits of archaeological research."

The newborn Society elected the following officers: President, Maurice Robbins of Attleboro; Vice Presidents, William J. Howes of Holyoke, Benjamin L. Smith of Concord, and Ripley Bullen of Worcester (now of Gainesville, Florida); Secretary-Treasurer, Edward Brooks of Brookline; Editor, Douglas S. Byers of Andover; Trustees, Philip W. Cole of Methuen, Joseph A. Wilk of Adams, Miss Mary Lee of Chestnut Hill, Leaman F. Hallett of Mansfield, Howard Torrey of Reading, and Roger H. Wilson of Attleboro.

Thus, Massachusetts joined other eastern seaboard states from Rhode Island to Georgia where some state archaeological societies were already in existence. These were, and continue to be, loosely united through the Eastern States Archaeological Federation, holding one two-day meeting each year to keep members of state societies informed about the activities of their fellows.

In the 25 years since the Massachusetts Archaeological Society was founded, the enthusiasm of its pioneering members and of those who came after is reflected in a host of accomplishments. As the prelude to more detailed historical information, a quick recap shows: 1) More than 800 amateurs and professionals in 11 chapters throughout Massachusetts, each chapter composed of members, who are quite literally digging up and recording evidence of past life in New England. In fact, largely due to the activities of the Massachusetts Archaeological Society, pre-history in this state has been traced back about 9,000 years, as authenticated by Carbon-14 dating. 2) Establishment and maintenance of the Bronson Museum in Attleboro, where continually changing exhibits portray the tools and weapons of early man in New England, supplemented by large dioramas giving visual evidence of his mode of life in the pre-colonial period. 3) Publication of a quarterly magazine, the Bulletin of the Massachusetts Archaeological Society, which is read with interest by archaeologists throughout the United States, Canada, and a few libraries in Europe. 4) Publication of three artifact classifications, each one an improvement over the last, so that any one New England archaeologist knows what type of implement another is talking about. The last and most complete one of these publications, entitled "Classification of Stone Implements of the Northeast" by William S. Fowler, comprises all 28 pages of the October 1963 Bulletin, Vol. 25, No. 1. 5) Maintenance of a Research Council with attendant committees, each charged with a specific portion of the over-all research program.

It might be mentioned that the foregoing results were not accomplished easily. It required work, unlimited, on the part of committees and all

Society officers, beginning with the first term, directed by Maurice Robbins, the first president, 1939-1942. This intensive drive continued throughout the terms of office of the following presidents:

Leaman F. Hallett	1942-1946
W. Elmer Ekblaw	1946-1948
Benjamin L. Smith	1948-1951
Howard C. Mandell	1951-1954
Willard C. Whiting	1954-1956
Walter A. Vossberg	1956-1958
Eugene C. Winter, Jr.	1958-1960
Viggo C. Petersen	1960-1962
Arthur C. Lord	1962-1964

Also, it required a great deal of work by Society members, most of whom, like the officers, are part-time archaeologists with full-time jobs in other fields of activity. That the membership includes as many mechanics, engineers, storekeepers, housewives, electricians, salesmen, etc., as educators, doctors, lawyers, librarians, and museum directors, reflects lively interest in an anything but dead subject. Once discounted as unimportant, archaeologically, this New England area is becoming of greater and greater importance, as its chronological history is pushed further and further into the past by ever recurring scientific discoveries.

In reviewing the first ten years of the Society in the decennial number of the Bulletin, April 1949, Maurice Robbins reported the formation in 1940 of seven local archaeological groups, located in the northern, central, Connecticut Valley, Plymouth, Cape Cod, and Nantucket areas. In the following order, by 1949, six of these had become full-fledged chapters: 1940, Warren King Moorehead Chapter, Attleboro, and Charles C. Willoughby Chapter, Concord—the latter inactivated by vote of the trustees in 1961; 1941, Connecticut Valley Chapter, Springfield-Holyoke area; 1945, Massasoit Chapter, Plymouth; 1946, Nipmuc Chapter, Worcester — later renamed W. Elmer Ekblaw Chapter; 1948, Northeastern Chapter, Andover-Salem area.

At the time of the first anniversary meeting in Holyoke, the total paid membership was only 76. However, the wheels of progress had begun to turn, as a Bibliography Committee, a Project Committee —forerunner of the research Council, a Site Survey Committee, and Membership Committee were in active operation; and the first Bulletin had been published in the fall of 1939. Also, it is worth noting that at this time a Society dig on Nantucket Island was in progress and was attracting numerous Society members, who received at this site their first lessons in certain accepted methods of excavating.

By 1941 membership had increased to 163. At this time, the Site Survey Committee reported 1,013 camp sites recorded on its maps, and the Bibliography Committee published a list of 900 titles. The Research Council became a reality, and the Society acquired an office in the New England Museum of Natural History in Boston. This activity was climaxed by incorporation of the Society as a non-profit organization for the pursuit of scientific research in archaeology. Incorporation took place at a meeting held at the Hotel Hixon in North Attleboro, in November of that year.

Then came World War II, and with it the following announcement: "Due to the current emergency, our organization, which has until recently enjoyed a rapid and healthy growth, is faced with the necessity of curbing many of its activities for the duration. Many of its members have entered the service, others are doing valued work in civilian defense, and little time remains for any type of archaeological research."

Nevertheless, for the next few years the Society managed to hold its own, and by 1945 was over the hump and on the increase again with a spring meeting membership figure of 193. Chapters which had suffered most were revived, and by April of 1949, when the Society held its tenth anniversary celebration at the Robert S. Peabody Foundation in Andover, membership had climbed to 301.

By 1963, additional chapters had been formed and approved by the Society as follows: 1952, Cohannet Chapter in the Attleboro-Taunton-Bridgewater area, and the South Shore Chapter that same year in the Quincy-Hingham-Braintree area; 1954, the Sippican Chapter in the Marion-New Bedford area; 1957, two chapters came in that year, the Shawkemo Chapter of Nantucket — its original group went back to 1940, and the Stonehill College Chapter of Stoughton; 1958, the Maine Chapter, which withdrew in 1960 to become the Maine Archaeological Society; and finally, in 1963, the Cape Cod Chapter drawing members from both the upper and lower Cape.

With the 25th anniversary at hand, membership has reached the 800 mark and beyond, with 11 active chapters in existence, and with several new ones about to be born. The fact that there are approximately 120 excavation teams of wife and husband who dig together, provides an interesting sidelight.

° ° °

Eleven years after the Society was organized came the acquisition of a Society museum for the

safe keeping and display of Society-owned artifacts. Winthrop F. Barden, our second Secretary-Treasurer, was the person to whom the Society became indebted for making museum space available on the fifth floor of the Bronson Building — now the 8 North Main Street Building — in Attleboro.

At the 11th annual Society meeting at the Museum of Natural History in Springfield, on October 8, 1949, it was voted to appoint Maurice Robbins custodian of the proposed Society museum. Then, in March 1950 at a meeting of the Trustees, Robbins read the proposed agreement between the Bronson Building Trust and the Massachusetts Archaeological Society, by which the latter would agree to conduct an archaeological museum to be known as the Bronson Museum at the appointed site under certain terms and conditions. These included the exclusive use by the Society of an office for the secretary, and a work room and artifact storage room for use by the curator. The vote was unanimous. Robbins also announced that Rathbun Willard had given the Society custody of his seven display cases and the Richardson collection of more than 30,000 artifacts, recovered from the Narragansett Bay drainage basin and adjoining areas. Willard's generous gift was accepted with gratitude, and he was made an honorary member of the Society at the semi-annual meeting in April 1950, appropriately held in museum quarters. Museum exhibits have been arranged by Director Robbins and Curator Fowler to show prehistoric cultural sequence in New England, with new exhibits and arrangements being continually added.

In the intervening years, seven dioramas of aboriginal life have been built into the museum, all of them as authentic as they are lively. Perhaps the most impressive is the diorama of Indian life, as it was once lived on the shores of Lake Assawompsett in Middleboro, in pre-Ceramic times. Its circular habitations were constructed to scale according to postmold evidence unearthed by Cohannet Chapter members over an extended period of excavation, at Wapanucket 6, an Archaic village site.

In addition to the dioramas, the museum displays stone implements most diagnostic of four culture periods. Also, it shows hafted stone implements, much as they must have once been hafted by native craftsmen, their wooden handles and shafts realistically finished with stone woodworking tools of prehistoric man. One large case contains examples of reconstructed New England ceramic pots in four different evolving stages, so that one may study the evolutionary development through which ceramics passed.

The museum is open three days a week, Monday, Tuesday and Thursday, other days by appointment through the mail, and visitors are welcome, singly or in groups. As a result, many school children have been introduced to the subject of archaeology through guided tours. The museum is also the meeting place of numerous adult groups, including the fall annual meeting of the Society.

* * *

The Society sponsors two publications as the means of communication and dissemination of knowledge among its members. The oldest of these is the quarterly Bulletin, which has been published without interruption since 1939. The first few issues appeared in mimeograph form, courtesy of the Robert S. Peabody Foundation, in cooperation with the Society editor, Douglas S. Byers. Since then they have been printed by offset lithography, fully illustrated. With the exception of a few editions in 1941, for which Chester S. Chard served as editor, Byers remained as editor for 12 years. He was succeeded by Maurice Robbins in 1951, who served as editor for 6 years, when Leaman F. Hallett took over in January of 1957. Upon Hallett's resignation two years later, William S. Fowler was elected editor, and continues as such. The Bulletin contains articles of both proto-historic and prehistoric interest, nearly all the result of extensive research by Society members.

The second form of published information is the Society's News Letter, the first issue of which appeared on March 25, 1940. The News Letter is mimeographed and carries general information of interest to members, including summaries of Trustees' and Society meetings, news of the Chapters, reports of Officers and Committee Chairmen, and current financial statements.

* * *

Over the years, the Research Council has made invaluable contributions to the Society through its committees, which have conducted studies in excavation, education, site survey, artifact classification, culture relations, and contact history. From time to time, many Council chairmen have made notable contributions, such as in 1949, when Leaman F. Hallett of the Historical Research Committee reported on the progress of his ten year project, begun the year the Society was founded. In his spare time he indexed some 14,000 contact historical and ethnological references taken from 98 source books, which he divided into 32 sub-headings. Each card contained pertinent information plus a verbatim transcript of the reference itself.

In Site Survey work, over 1,500 aboriginal camp sites have been mapped to date; the listing is a continuous process, and there is no end in sight.

In 1949, Culture Sequence was evaluated and outlined in a report published in the Bulletin by Ross Moffett, Chairman of the Culture Relations Committee.

Artifact Classifications have been made and published on several occasions under the direction of various chairmen of this committee. Ripley P. Bullen's first attempt was followed by a revision by Benjamin L. Smith. This was subsequently revised and added to as now appears in the Society's publication, "Classification of Stone Implements of the Northeast" by William S. Fowler. These are but a few of the accomplishments sponsored or inspired by the Research Council.

Since the organization of the Society, there have been two major revisions of the by-laws. In the News Letter of February 1957, the first revision was printed. The latest one was completed in June 1961, and was printed in separate form, January 1962. Copies are now available upon application, and are furnished to all new Society members.

In addition to an Honorary membership conferred upon Rathbun Willard in 1950, as already mentioned, over its years of growth the Society has conferred Honorary memberships upon other deserving individuals, who have greatly aided in furthering the Society's progress: 1946, Dr. William A. Ritchie, New York State Archaeologist, for his willing assistance in personally investigating and evaluating archaeological features at sites under excavation, and for his frequent participation as guest speaker at numerous Society meetings; 1947, Dr. Kirk Bryan (deceased), geologist at Harvard University, for his support of Society objectives and his analysis on several occasions of geologic features at the Titicut site, which proved to be evidence of an early post glacial occupation; 1953, Dr. Carl E. Guthe, then director of the New York State Museum in Albany, in view of his life-long participation and contributions in archaeological research, and for his aid in furthering the growth of this Society; 1955, Mrs. Winthrop F. Barden, in grateful recognition for the grant of space for the Society's Bronson Museum in perpetuity; 1957, Dr. Richard J. Lougee (deceased), geophysicist at Clark University in Worcester, for his ready response in rendering Society assistance, and especially for valued graphic geologic mapping and evaluation of the Wapanucket sites on Assowampsett Lake; 1962, Dr. Harold H. Plough, professor at Amherst College, for his keen interest and faithful assistance in affairs of the Society since its inception.

It seems only a moment ago that the Society held its 20th anniversary meeting at the Worcester Historical Society for its business meeting, and at Worcester Polytechnic Institute for its research session and dinner meeting. At this time, Maurice Robbins reported for a committee appointed to explore the possibility of forming a regional federation of New England archaeological societies. The Society then approved the formation of this group to be known as the New England Archaeological Council. Subsequently, several meetings of the Council were held with the Connecticut and Rhode Island Archaeological Societies participating, but without success in reconciling divergent points of view concerning classification of artifacts that exist between different factional groups in the Northeast.

Another five years have now passed, so perhaps it is well to stop looking backward, for the moment, and instead look forward to a noteworthy event, the Society's Silver Anniversary. It will be celebrated at its spring annual meeting in April 1964, at the Robert S. Peabody Foundation museum in Andover, where the Society came into being twenty-five years ago. Following this in November there will be a joint meeting of the Eastern States Archaeological Federation, with the Massachusetts Archaeological Society appearing as host.

CONTRIBUTIONS TO THE ADVANCE OF NEW ENGLAND ARCHAEOLOGY

William S. Fowler

When a subject of this nature is considered with all its extensive archaeological branches of research, it is important to know upon what basis, and under what authority the work has been conducted. Obviously, nothing but scientifically controlled effort would be worthy of notice in these pages, since this Society, in accord with all others, has always adhered to the best methods of obtaining the truth. However, here at the start of whatever may be written about the scientific accomplishments of the Massachusetts Archaeological Society, it may be well to briefly review the factors that lie back of its apparent success.

The original concepts that have borne fruit over twenty-five years of growth came from a meeting of minds between both amateurs and professionals. A mutual feeling, which permeated early councils and deliberations, was that greater advance would be possible through the combined efforts of these two interested groups, but only if amateurs were given freedom to develop along lines of independent but scientifically guided action. Thus, non-professionals with qualified abilities were encouraged to secure through graduate studies, knowledge and standing for leadership in the archaeological field. This has now been put to good use in furthering amateur controlled research, on which the following pages appear in evidence. This is not to say that other methods of approach in other quarters have not proved productive when properly supervised. What seems important here is that the basic amateur structure underlying archaeological Society research in Massachusetts be recognized, with an awareness that results have followed scientific logic unhampered by dogma. For example, there has been freedom of action in developing classifications, and in establishing appropriate terms for artifacts and cultures within the archaeological framework in general use elsewhere. Also, there has been freedom to excavate in the field under Society guidance without being hampered by requirements of academic standing imposed upon the diggers.

Another observation which should be made is that this amateur controlled leadership has not prevented professional cooperation. On the contrary, opinions have been sought and valuable aid received after on-site inspection from many respected scientists, such as the late Kirk Bryan, William A. Ritchie, and George A. Agogino, to mention only a few. Both archaeologic as well as geologic appraisals from such authorities have assisted in developing a better understanding of how these two sciences may cooperate in ferreting out the truth about man's relation to his environment.

DEVELOPMENT OF A SOCIETY MUSEUM

From inception of the organization, a Society owned museum was envisioned. There it was hoped truths about prehistoric New England, as exposed in the field through Society influenced excavations, could and should be exhibited. Fortunately, the present space covering the entire top floor of the 8 North Main Street Building in Attleboro, was eventually made available for Society use, and has become known as the Bronson Museum. In the formation of its displays, many departures have been made from usual museum practices in which stone artifacts are either shown in concentrations of individual types with emphasis on quantity, or in groups representing geographic source areas. Instead, artifacts have been segregated into four culture groups, discovered by site excavation. In one upright case is displayed the profile or vertical cross section of a typical site with the four zones of occupation indicated, one above the other. In each is attached stone artifacts, diagnostic of these several culture levels. Here at a glance may be studied the transition of traits between culture periods, or the absence of such overlapping.

Continuing a portrayal of these culture uplifts, step by step, seven dioramas — the largest, 15 feet wide — show pertinent recovered artifacts in the foreground, as though just left there by their owners, with painted back drops depicting probable natural surroundings of the several periods of occupation. In two are shown wigwams assembled on village sites with their occupants, made to scale. One is an Archaic settlement of seven lodges, Carbon-14 dated about 4,300 years ago — the only one ever discovered and excavated. The other is a 17th century camp at Titicut in Bridgewater. Further exhibits are laid out in cases to show by diagnostic implement groups the extensive artifact traits belonging to each culture. Such displays as these have been made possible only because the work involved was contributed by qualified Society members, who were seeking satisfaction from archaeological accomplishment, not from monetary return.

In addition to these culture groups, many other displays fill the remaining space having to do with the works of early man. On the wall of one upright

case are attached hafted specimens of many kinds of implements, their handles or shafts finished in the primitive way with stone woodworking tools. In another case is an outstanding display of seven stone bowls, the largest, 25" long by 9" deep. They were recovered from secondary burial deposits in Lakeville. A long adjoining case contains a large assemblage of ceramic pots, representing four stages of development dating from about A.D. 300 to 1650. Numerous other cases include exhibits of maize planting, a display of bone implements from Maine and elsewhere, a well-preserved Celt-mace in its original handle, stone artifacts from Maine and local important sites, as well as a visual classification of actual projectile points separated into their respective type groups.

Through this museum effort, collectors have been encouraged to properly classify and record their private collections. This in turn has influenced many gifts and loans from them, which have done much to make the museum a significant contribution to the Society's growth. Another important factor that has made many of these exhibits possible has been a gift of some 30,000 artifacts by Rathbun Willard, who is also the donor of most of the cases. Along with this enlarged scope of activity came the need for restoration of artifacts, especially pottery, which usually is found in a broken state. Fortunately, artisan ability was available for the purpose, and gradually the ceramic display previously referred to came into being. When news of this began to circulate, private pottery recoveries by individual members came to light, and interest mounted to bring about their restoration. This work has now been accomplished, but a continuing demand for pottery restoration requires that constant attention be given to this phase of the museum work.

No matter how complete a collection of artifacts may be, there are always some specimens, which are fractured. Usually, such damaged artifacts are just the ones needed to improve or complete certain exhibits. To show them in their shattered condition has seemed inadvisable, since their original outline is difficult for even a trained eye to visualize in their imperfect shape. After careful consideration, the problem was solved in a similar way to that of broken pots — by restoration. However, care was used to limit the work, so that restoration of only those specimens whose missing areas were such as could be redefined by projection of the remaining edges was attempted. For example, atlatl weights, usually recovered split through the central perforation with one-half missing, mean nothing to the average eye. Not until the missing half has been reconstructed to match the recovered half can anyone look at the artifact with an appreciative understanding. In this way, by carefully avoiding those specimens damaged to an extent beyond honest restoration without guesswork, many important artifacts on exhibit have been saved for comparative study. Now, it seems apparent that such faithful restoration of museum artifacts becomes an important factor in effecting more realistic exhibits for both the public as well as the scientific eye.

AIDS TO EDUCATION

Archaeological investigation and research, especially in outside regions, amounts to very little until it is put into writing for dissemination. Knowledge gained through reading such reports is, however, confined to a relatively few. For the rest, other methods have to be found, if knowledge of what is going on over a wider horizon than that of local research is acquired. In an effort to spread such information to interested Society members, a course of lectures by the Museum Director, Maurice Robbins, has been conducted at the museum. These have taken place every other week on Sunday afternoons through the winter season during the past number of years. Subjects presented in considerable detail have included topics in different branches of anthropology. They have embraced studies of current authoritative theses dealing with nation-wide anthropological subjects, from ethnological investigations of living tribal peoples to archaeologic evaluation of evidence dealing with migratory movements of prehistoric peoples and their provenience. Many members have taken advantage of these lectures, since they have found them not only informative, but conducted in such a way as to encourage the free exchange of opinions on controversial subjects.

Perhaps the most outstanding aid to education has been the Society Bulletin. Published quarterly, it has never missed an issue since its inception in 1939. This publication, although professionally edited over the first twelve years, has depended to a large extent upon amateur reports from Society members. For the last ten or twelve years, it has been under amateur editorial control, and the number of amateur manuscripts received is on the increase. This doubtless is as a result of an editorial policy that attempts to encourage amateur writing of site reports, by extending a helping hand wherever needed. Members are encouraged to undertake private digs, after becoming briefed by published methods of excavation and by personal contacts with the Editor. Illustration of artifact recoveries, an important part of any report, is

offered as additional service. In this way, a novice digger readily comes to understand the basic principals to be followed. He finds they are not as complex as he had imagined, but are easily understood. So he enters enthusiastically into the work; he has accepted a challenge for controlled independent action. This is in no way intended to minimize the regular and accepted site excavations carried on by Society Chapters, which are described further along. As a matter of fact, these digs, conducted under the best methods of scientific control, have set a good example over the years for smaller private excavations.

Not only as explained does the Bulletin attempt to raise the general standard of participating members, but also through publication of artifact classifications, which emphasize culture relations whenever known of various types of artifacts. With the advantage, today, of Carbon-14 datings, culture chronology becomes better known with less left for speculation than in the past. It is with such information being placed before them that members, who formerly were only surface hunters and pothole diggers, are developing a new scientific point of view. They are now not just satisfied with adding new artifacts to their collections. They want to know more about them: how old they are, who made them, and where the stone materials used in their manufacture came from. An increasing number of these collectors have aspired to even more advanced study, and have opened private digs with editorial assistance as previously outlined. This new amateur attack in uncovering buried secrets of the past is most commendable, but only when the participants present their discoveries in written reports for publication. The Society Bulletin offers the medium, and the continued supplying of site reports by members is aiding materially the advance of New England archaeology.

LINGUISTIC RESEARCH INTO THE INDIAN LANGUAGE

While this subject is one not commonly undertaken by most, the Society has been fortunate in having one Charter Member, Laurence K. Gahan, who has made a long study of it. He has spent hours, days and weeks perusing early colonial deeds and writings, which dealt in any way with the local Algonkian language. Through comparative analysis and good common sense he has perfected his technique, so that his translation of Indian words is thought to be most authentic. His several articles on the subject published in the Society Bulletin are enlightening, and not without humor. Delightful interludes are interspersed, and break up what might otherwise be considered a dry subject.

SITE EXCAVATIONS

All through the years the Society has stood for scientifically controlled site excavations, but has not supported the dogma of insisting that the work be done only by professionally sponsored groups. It has felt that through Bulletin dissemination of knowledge and good sound advice from Society trained officials, anyone with determination to learn more about the primitive past through excavation that might be obtained only through the recovery of artifacts, could be guided toward that end. At first, through the good example of those qualified to lead, and later by detailed reports of site excavations and supplementary written digging instructions, many members have been inspired into action. Through such concerted effort a great many more diggers have worked in the field gathering archaeological evidence than otherwise would have been possible. More sites have been located and dug, and an ever increasing number of manuscripts containing reports of the work have been received for publication. As a result, much more valuable evidence has been recorded than could have been expected had the work been professionally restricted. Furthermore, a much wider range of operations has been made possible, with a larger number of sites investigated before they became destroyed by the encroachment of civilization.

At the start, a site excavation was undertaken on the Island of Nantucket as a Society project, and after a number of years was reported in the Bulletin. Since then, with the formation of Society Chapters in various sections of Massachusetts, Chapter digs have been successfully engineered, with written reports following for publication. In each case, some qualified amateur was appointed research director, who supervised recording of data and the writing of the final report. This activity is still going on, but in addition of late, certain enterprising members not affiliated with Chapters have excavated sites under their own supervision with laudable results. In general, this work has been carried on in areas not represented by Chapters, or in sections where Chapters have become inactive in the field. Were it not for this independent effort, much valuable information concerning the past would still be missing.

PRIVATE DIGS. It may be well at this point to mention a few private digs and some of the evidence they have produced in order to emphasize their importance in furthering the Society's scientific advance. Of course it should be remembered that as a result of this effort and that of Chapter digs, knowledge has developed over the years in

graduated steps. Hypotheses have been made, modified, or broken as new discoveries put in an appearance, and doubtless this will continue to take place as time goes on. However, credit should be given to those amateurs, who have devoted themselves to excavational research on their own in an effort to further Society objectives.

Some twelve years ago in Carver, Massachusetts, Richard H. Bent conducted an excavation at the Swan Hold site, which helped support the then tenuous belief of the presence of several culture zones of occupation. Many diagnostic artifact traits, since firmly associated with the different cultures, were found in their respective zones at this site. As reported in the Society Bulletin, Vol. 13, No. 2, some postulations were not at that time clear, such as the division of the Archaic into two distinct periods, Early and Late, which by now have become well identified. The point is that certain evidence appeared at this site, which proved useful in reaching today's widely accepted conclusion of the existence of two Archaic periods.

Then, as late as 1959, a vigilant member spotted a site being destroyed by bulldozer activity in Wayland, Massachusetts, on Cochituate Lake. J. Alfred Mansfield had been a Director of the Society and was well qualified to attempt excavation of what was left at this site, before demolition was completed through building operations. Although professional criticism has been heaped upon Mansfield's efforts, let it be said here that, apparently, charges were based, not upon the facts of the case, but upon prejudice and hearsay. As reported in the Society Bulletin, Vol. 23, No. 1, Mansfield pursued a prompt approach under cover of cautious operations in hopes of concealing them from public gaze. But, as so often happens under such exposed conditions, this he failed to do, with the result that the public eventually overran and monopolized the site. However, before this took place, Mansfield recovered hundreds of artifacts from depositions, which he was able to identify as a crematory and secondary burials of the Late Archaic. Presence of Full Grooved axes and diagnostic types of projectile points furnished sufficient evidence without a Carbon-14 measure, to give credence to this culture association. And so, whatever artifacts were lost as a result of public plunder, Mansfield deserves credit for having been able to identify the most important aspects of the site and the culture responsible for its deposition. In other words, his work stands as an important contribution to science, with recovery of evidence that would have been lost forever, but for his alert detection and speed in excavating. Such evidence confirms a growing belief that human cremation was an established mortuary rite in Late Archaic (Stone Bowl) times.

Shortly after this, and not related in any way, another member located a similar site being destroyed by the construction of a beach road on Cape Cod in East Orleans. Frank Kremp completed a splendid job of excavation and recording of evidence at the Coburn site, reported in the Society Bulletin, Vol. 22, Nos. 3 and 4. With limited assistance he recovered hundreds of artifacts from what appears to have been the greatest concentration of cremation-associated implements ever located in this area. His careful work preserved evidence of a kind to indicate the presence of cremation-connected secondary burials. Because of the presence of quantities of Full Groved axes and certain types of broad bladed projectile points, it is possible to postulate that here again were mortuary remains of the Late Archaic. It seems to present another link in support of similar evidence from other sites.

At about this same time, an Andover member ran into evidence, which led to his discovery of a unique site in North Reading, Massachusetts. Arthur Petzold has given a convincing account of his excavation and recoveries in the Society Bulletin, Vol. 22, Nos. 3 and 4, entitled: *The Eaton Site: A Dugout Workshop.* Never before, so far as is known, has such reliable and documented evidence been reported of a probable dugout workshop, replete with its various tools. And here again, because of the presence of a Full Grooved ax there can be no doubt that these remains are those of the Late Archaic Stone Bowl Makers.

Then, on the upper reaches of the Taunton River, a site was dug by Karl S. Dodge assisted by William H. Taylor on the Seaver Farm. His report in the Society Bulletin, Vol. 23, Nos. 3 and 4, shows his work to have been carefully done and fully documented, with a complete understanding of scientific principals. Once more, evidence occurred substantiating the existence of two Archaic and one Ceramic culture period. Perhaps the most outstanding recovery from this site were the broken remains in two refuse pits of a Stage 4 pot. When fully restored, it proved to be an exceptional specimen (Fig. 1). Its castellated collar is embellished with four corn effigies centrally located between the castellations. These, together with an expertly incised intricate design, which completely covers the wide 3″ collar, makes this one of the finest specimens of the potter's art ever recovered from New England sites.

One of the most important private digs took

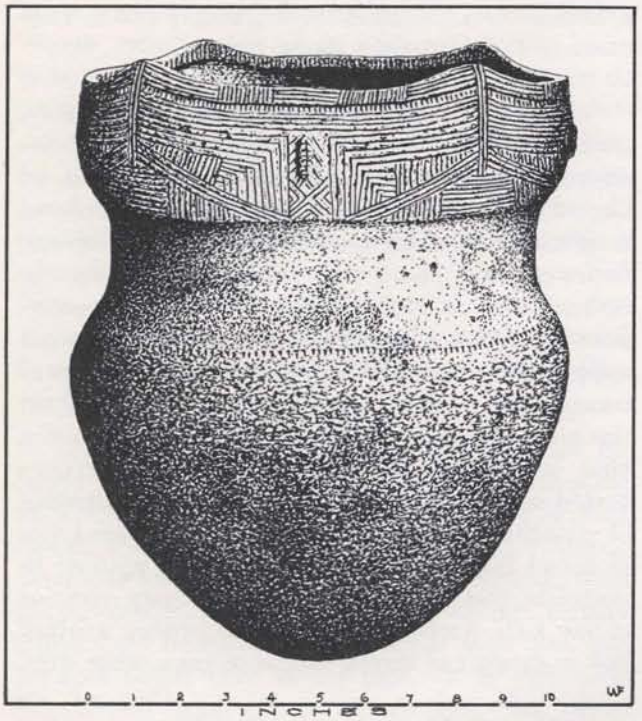

Fig. 1. CERAMIC POT (STAGE 4) — Restored. Seaver Farm Site, Bridgewater, Mass.

place in Ipswich, Massachusetts, on Bull Brook in 1950, and work on it has continued up to the present time. The site was discovered by Joseph Vaccaro and William Eldridge, who were joined in its excavation by Joe's three brothers, Frank, Tony, and Nick, and by Tony Orsini, all members of the Society. Reported in the Society Bulletin, Vol. 18, No. 3, it is famous for the large number of Fluted points and related artifacts recovered (Fig. 2). One hundred or more perfect or near perfect Fluted point specimens were excavated from an early hard-packed gravelly sand layer, which appeared 10 to 15" below junction. They occurred partly in living areas of 6-10 feet in diameter, about which were spread small flint chips, scrapers, and other tools. There were 20 or more of these occupational areas, and they seem to indicate repeated use of the site over an extended period. During this time, many different kinds of flint stock, apparently, were brought in from outside regions, such as the Hudson Valley flint deposits — flint is not indigenous to New England. At least six or eight different colored flints appear in the assemblage, from which the artifacts were made. In addition to small Stem scrapers and Fluted points, of which there occurred an additional quantity of broken pieces, there were a number of Gravers, small drill-like blades, and specialized knives of a unique elongated shape. Existence of these artifacts at the same low level, except some that were obviously out of context because of disturbances, gives rise to a belief that here is represented a pure Paleo-American site at its lowest level. The sand above was nearly sterile, and not until the loam was reached did a few artifacts of a later day appear. Some years later, three Carbon-14 measures were obtained of charcoal samples taken from the site, the one procured by Eldridge being the most reliable. This came from a probable open hearth on the low level and yielded a date of about 9,000 years ago.

Of all the private digs, a number of which are not specifically mentioned, such as those on the Cape by Ross Moffett, and in the Andover area by Ripley P. Bullen, one recent excavation contained evidence of just the two Archaic periods. It was excavated by Stanley M. Roop in Mendon, Massachusetts, and was reported in the Society Bulletin, Vol. 24, No. 2. The recovered evidence was carefully documented and studied, with the result that Early Archaic artifact traits were found to lie below those of the Late Archaic. Of the former, the following types of projectile points appeared to be diagnostic of the age: Corner-removed #5,8,9, and Bifurcated, as well as the Leaf knife. Significant diagnostics of the latter culture period were found to be: Corner-removed #7, Side-notched #1, Eared, Small Triangular, and Small Stem points, Stemless Knife, and Clumsy plummet. The value in this evidence lies in its support of previous excavated

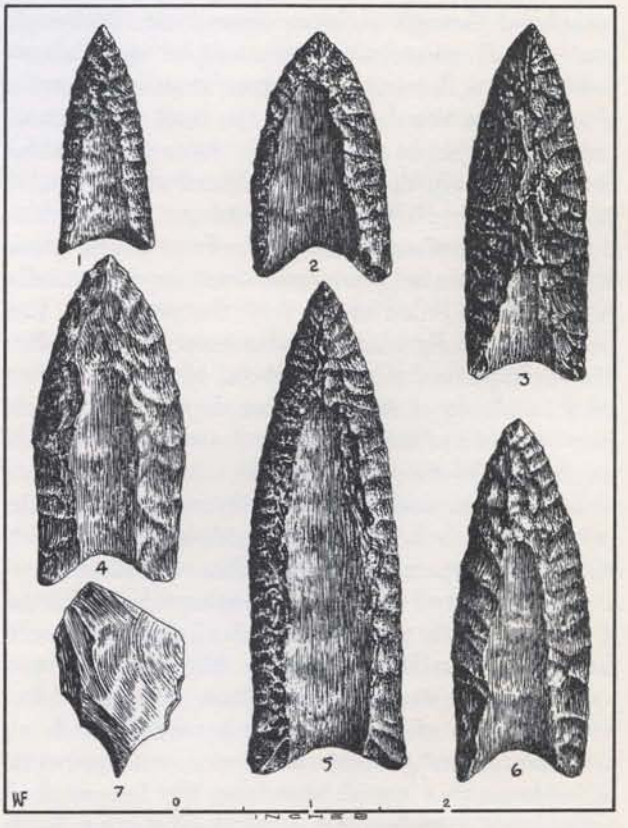

Fig. 2. BULL BROOK PALEO ARTIFACTS. 1-6, Fluted Points; 7, Graver.

information, which indicates similar culture affiliation of traits. Thus, with every new site that is dug in which sequential culture traits appear the same as those from former digs, that which at first appeared as a probability, now seems closer to a reality.

CHAPTER DIGS. In discussing Chapter operated digs, it should be emphasized that from the beginning they have led the way in scientific research, and still do. It may be sufficient here to briefly outline the most important ones, without mentioning their various contributions in new discoveries; these will be referred to further along under an appropriate heading.

Possibly the first site excavated was by members of the Warren K. Moorehead Chapter of Attleboro, under the direction of Maurice Robbins. This was the Faulkner Spring site, which was reported in a special Society contribution. In those days, knowledge about the cultural life and people who made the excavated artifacts was in its infancy. Excavational recording had not been refined to meet today's rigid requirements, so that conclusions reached were somewhat sketchy and not as comprehensive as might have been desired. This condidition was not unique in this area; it existed in other parts of the country as well. Over the next twenty-five years there would develop much enlightenment, which with an exchange of ideas from one end of the land to the other would lead researchers much closer to the truths than was possible at the start.

Soon after, the Ford site on Winneconnet Lake in Norton, Massachusetts was excavated in 1945 by the same group. A report of operations was published in American Antiquity, Vol. 12, No. 2. While a number of creditable artifacts were recovered, knowledge of their culture significance had not increased sufficiently at that time to permit dependable deductions. However, a correlation with archaeological recoveries in outlying regions to the west and south was attempted.

During these early years three steatite stone bowl quarries were excavated by two Chapter groups. The Connecticut Valley Chapter under the direction of William S. Fowler spent three years uncovering quarry remains at the Westfield quarry — the first excavation of this site. Much valuable information was gleaned as to the use of certain tools in making the products of the quarry. Of particular significance was the discovery of a quartz tool quarry and workshop adjoining the steatite workings. Here were located two important storage caches of over a hundred small tools, ostensibly made for use in shaping the steatite products. Reports of these operations appeared in an early Society Bulletin, and in American Antiquity, Vol. 11, No. 2.

This same Chapter group spent three more years excavating the Wilbraham quarry — previously explored superficially by several interested groups, one headed by Dr. Putnam of Harvard University. The work carried on by the Chapter was concentrated in two large man-made craters, which occupied areas formerly filled by large steatite boulders rolled down from the mountains by the glacier. These had been completely worked away in most instances by the Stone Bowl Makers. Their tools had been forgotten and left behind with broken products of their industry, so that much was learned as a result of this intensive research. A few years later, the director of this dig conducted another with Dr. Rouse of Yale University, in which the Ragged Mountain quarry-rock shelter in Connecticut was thoroughly excavated. Here for the first time domestic implements of the quarriers were found lying among their quarry tools, with definite implications that they belonged to the same people; their living abode was also their workshop, since steatite veins outcropped within the rock shelter. Because of this close association of implements, certain domestic types have become well established diagnostics of the Late Archaic. Another important result of the Ragged Mountain excavation was the definite separation of ceramics from stone bowl making. Potsherds appeared at the site, the remains of later people who used the rock shelter as a hunting lodge, separated from the lower level of stone bowl deposits by a sterile layer of water-washed soil. This seemed to represent a lapse of time, perhaps as much as a hundred years or more, between the closing of the quarry and the coming of the ceramic occupation.

During the early days of the Society, the Worcester Chapter (more recently the W. Elmer Ekblaw Chapter) under the direction of Ripley P. Bullen spent one season excavating the Dolly Bond quarry, which lies south of Worcester. A report of operations appeared in an early Society Bulletin number. This excavation turned up many tool types similar to those of the Connecticut Valley quarries. From this tool comparison a more or less comprehensive picture began to take shape of the probable plan of quarry operations once employed at stone bowl quarries.

In about 1946, excavation of the Titicut site in Bridgewater was commenced by the Warren K. Moorehead Chapter of Attleboro, under the direc-

tion of Maurice Robbins. Lying in the upper reaches of the Taunton River, this site under intensive well-documented digging began to reveal evidence of a thought-provoking nature. Five feet down in some places artifacts were recovered on a white sand level laid down in early post glacial times. Unique small stone hearths at this level with ½" charred stick remains seemed evidence of occupation in tundra surroundings, presumably before forestation of the area (Fig. 3). This revelation was an exciting occurrence, which placed a new note of importance upon the site. Also, for the first time in the Chapter's digging there existed at Titicut archaeological stratigraphy, which seemed to have possibilities for culture differentiation. Thousands of artifacts were recovered during the next four years of work, and a large number of burials were exhumed, many with important grave goods. More specific reference to discoveries made at the site will be found in another section on the subject.

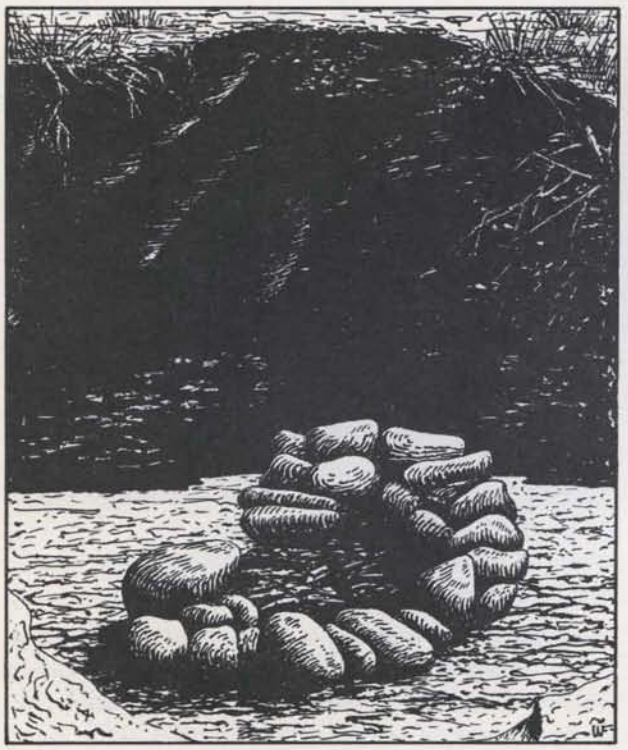

Fig. 3. EARLY ARCHAIC HEARTH, Titicut.

The most extensive and productive site excavation has taken place over the past ten years at Assowampsett Lake in Middleboro, Massachusetts. Here the Cohannet Chapter of the Attleboro-Taunton area has been digging each season under the direction of Maurice Robbins on one site after another, identified as Wapanucket #1 through #8. Numerous important discoveries have been made, as will be noted in a subsequent section, and work is still in progress on site #8. A fully documented and illustrated report of Wapanucket 6 was published by the Chapter, in which an account was made of the excavation of an Archaic village of seven large wigwams or lodges, the first ever reported in the Northeast. Many of the more important artifacts recovered in and about the lodges are on display in the Bronson Museum, some of which are especially outstanding, and are described and illustrated in a later section.

Over the intervening years there have been numerous digs conducted by several other Chapters, some of which are in progress at this time. Reports of sites just completed or in progress will be awaited with much interest, for information about new evidence to add to that already assembled.

DEVELOPMENT OF DIGGING TECHNIQUES

When Society groups commenced excavation of sites back in 1940, and during the following number of years, little was known about the most suitable methods of excavating and recording. Certain procedures as laid down by professionals were available, to be sure, and were followed in some cases. However, as work progressed under amateur guidance, freedom of thought unfettered by dogma began to assert itself. Certain established rules were found cumbersome and unnecessary; were replaced by new methods of operation. And so over the years, a totally new approach began to take shape, which has many advantages over old professionally prescribed systems. For example, establishment of a datum point above ground, as a level to extend over the entire site from which measurements should be taken, was replaced by the line made by natural agents in the ground, called junction. This is an irregular line of demarkation separating loam from subsoil. Since this natural guide line moves up and down, following the contour of the ground formerly occupied, measurements to it record more realistically the culture relation of artifacts. They are not subjected to conformity to an arbitrary datum line, as formerly prescribed. In other words, junction used as a base line seems more reliable, since it was formed naturally during occupation of the area. Therefore, man's actions should be closely related to it, and correspondingly his artifacts, which fell by his side. When junction is reached by a plow, it is sharply formed and is uniform, with evidence of plowshare marks appearing in the subsoil. When plowing has not touched the subsoil, or is absent altogether, junction is not a clear cut line, but is an irregularly formed area of dark colored soil that fades into the lighter colored subsoil, of from one to two inches in

thickness. When this is the case, vertical measurements are made to its approximate center.

Another revision of techniques came when preliminary trench digging for location of artifact concentration was abandoned as unsatisfactory. Such exploratory labor was found to be wasteful, since too much depended upon luck, with the probability of missing the important evidence altogether. Experience proved that time and energy were saved by covering a larger area as a unit of operations. Laid out in 5 or 6 ft. grids, a systematic excavation of the entire area, carefully selected, proved more rewarding than preliminary trenching.

Professional advice was received at first, which denied the establishment of culture zones or levels of occupation, unless they were found to be separated by sterile layers of soil. In actual practice this dogmatic rule was found to be too restrictive, and would, if followed, have prevented excavation of almost every site Society members have dug. Therefore, to have followed this advice would have prevented most of the discoveries described somewhat in detail in a following section. Fortunately, it was discarded in favor of recognizing culture zones by virtue of their major industrial artifact contents. For example, at sites where potsherds existed, the zone in which they appeared was considered to be that of the Ceramic culture. When they were absent, other diagnostic stone bowl industrial artifacts of the previous period might exist to identify it. All lower zones were treated in a similar typological way, and by correlating the evidence from many sites, a reliable culture stratigraphic pattern has come to be recognized, called archaeological stratigraphy. It has a possibility of four culture zones, so far identified: Paleo American, Early Archaic, Late Archaic (Stone Bowl), and Ceramic (Woodland).

When it comes to recording stratified layers of soil by a profile drawing, it was found unnecessary at most sites to spend the time and effort required to clear out each square and measure the exposed soil layers, in accordance with the established custom. True, there could be occasions when such exacting records might be required, but in the main at most sites it proved a labor wasting device, which delayed digging progress. However, it should be stated that the chief reason for this by-passing of a favorite dogmatic requisite is to be found in the new method employed of recording the vertical position of artifacts. Instead of just one measure being taken to a datum line from the artifact, two or more measures are made for every recovered artifact: 1) from artifact to junction, 2) from artifact to grass roots, 3) and if artifact is in the subsoil, another measure is often useful, from artifact to white sand or gravel floor of the site. From this it may be seen that with every recording, a profile reading is available, which may be used later to construct profile drawings. Actually, this procedure is more reliable than using sides of the square, since readings are made at the precise spots occupied by the various artifacts. Therefore, any declivity of the soil would be automatically accounted for. Furthermore, by this method of recording the excavator knows at once, for every artifact found, its relation to soil deposits. He is not obliged to await adjustment with profile charts to learn of an artifact's stratigraphic position. Consequently, by following the Society method of making vertical recordings — which by the way are the most important measurements to be taken — the excavator is able to identify fairly accurately the probable presence and position of culture zones long before the dig is completed, which is of definite advantage in formulating interpretation of the evidence.

ARCHAEOLOGICAL DISCOVERIES

OLD BELIEFS DISPLACED BY NEW EVIDENCE. During the start of Society operations, the belief was expressed by many authorities that the oldest culture in New England probably existed no earlier than 3,000 years ago. Therefore, it is easy to understand with what excitement discovery of the small stone hearths on white sand at Titicut was received. The late Dr. Kirk Bryan of Harvard spent some time at the site, and pronounced the white sand level an early post glacial stratum, thereby implying an ancient age for its hearths, already referred to, and their associated artifacts. Charcoal from hearth #1 and from others that followed was carefully preserved, but Carbon-14 analysis at that time was in its infancy and inaccessible to most. Several years later, Frederick Johnson of Andover took a charcoal sample at the site from an open hearth on the same white sand level, from which a maximum Carbon-14 date of 6,000 + years ago was obtained. Excavation of this site revealed Early Archaic projectile points associated with the white sand-level hearths, and one broad blade with parallel based sides, Yuma-like. Altogether, this evidence seems to suggest that the Early Archaic Age existed at Titicut more than 6,000 years ago.

Another fact contributed by the work at Titicut was discovery of the use of red powdered ochre (red paint) in human burials including some colonial contact interments. Formerly, it had been in Maine burials only. However, there is a difference

in that the quantity per burial was much less at Titicut, presumably for lack of a free powdered source, as exists in Maine on Mount Katahdin. Here at Titicut it was acquired by laboriously grinding hard lumps of ochre by hand in shallow stone mortars. Nevertheless, use of it persisted throughout this area, where it played a significant role in mortuary rites. Later excavations at the Wapanucket sites have revealed red ochre in use there, too, with more being used in some instances than at Titicut.

An old prevalent idea was that stone materials selected for implement manufacture were indigenous, and that flint came from cobbles to be found in the glacial till. While this may have been true in part, more recent recoveries have proven beyond a possible doubt that in Paleo and Early Archaic times, when life was a nomadic hunting existence, importation of Hudson Valley flints was of frequent occurrence. In Late Archaic and Ceramic days, industrial activity became a dominant factor with life more sedentary. However, even then Hudson Valley flints found their way into this region, but probably as a result of barter with stone bowls and other goods used in trade.

CREMATION MORTUARY RITES. At Wapanucket 6 site on Assowampsett Lake, the Cohannet Chapter excavated many post molds occurring in pairs. The outlines of seven circular lodges were defined having unusually large proportions of from 35 to 62 ft. in diameter, and with a side entrance, as in a snail shell. This was found to be an Archaic village 4,300 years old from a Carbon-14 measure of associated charcoal. The largest lodge of 62 ft. in diameter is presumed to have been a ceremonial meeting place, as the remains of five open hearths were arranged around its center. Perhaps, one of the ceremonies had to do with human burials, for three crematories were uncovered, identified by large accumulations of burnt stones, calcined human bone remains, and charcoal. To complete the ceremonial process, secondary burial pits occurred containing mortuary offerings of artifacts, and in some cases, human calcined bone fragments and substantial amounts of powdered red ochre. Since no other graves were located with unburned human remains, as found with later day cultures, it seemed certain that at the time of this occupation, presumed to represent an early aspect of the Late Archaic, human cremation was an established mortuary rite.

YUMA-LIKE POINT. Recovery was made at Titicut on the low-lying white sand level of a broad bladed flint projectile point with a wide parallel sided worked base, extending about half the length of the blade. With only slight removal of basal sides, the result is suggestive of Yuma traits. At the Heard Pond site on the Sudbury River, a At the Hearn Pond site on the Sudbury River, a similar point was recovered from a low level at the bottom of the Early Archaic zone. At still a third site on Eel River in Plymouth an early type elongated point Eden Yuma-like was excavated from a low level. These three recoveries (Fig. 4) support the belief that Yuma-like points are present in this eastern area at the lowest levels, and may indicate a merging of Paleo with the Early Archaic.

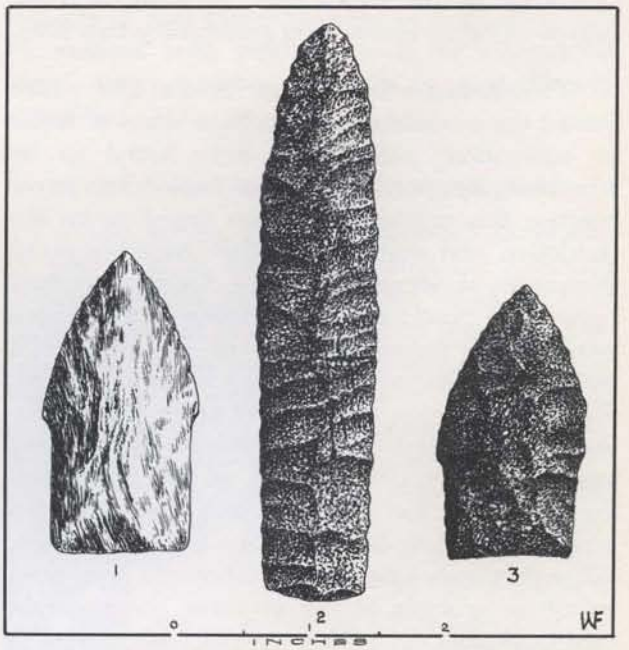

Fig. 4. PALEO - CONNECTED POINTS. 1, Corner-removed #2 (Titicut); 2, Eden-like (Eel River); 3, Corner-removed #2 (Heard Pond).

DALTON-LIKE POINTS. Recently, while excavating at Wapanucket 8, two low lying pits containing some powdered red ochre were uncovered. From them came several relatively long and broad well-worked projectile blades or knives. They are made of Hudson Valley flint with prominent flaring basal points or ears, with somewhat concave bases. These traits match fairly closely those of certain early points in the Southeast, which carry such names as Dalton, Meserve, Quod, and Greenbrier. They have occurred on sites there, found in such a way, as to strongly suggest that they represent a merging of Paleo and Early Archaic times. Since a number of Fluted points have occurred at Wapanucket 8 in close proximity to its long flint blades, a connection of some kind between the two seems probable.

SEMI-LUNAR SIDE-NOTCHED KNIFE. Returning to the Titicut site and its earliest occupation level on white sand, mention has already been made of its unique stone hearths with small fire pits. It

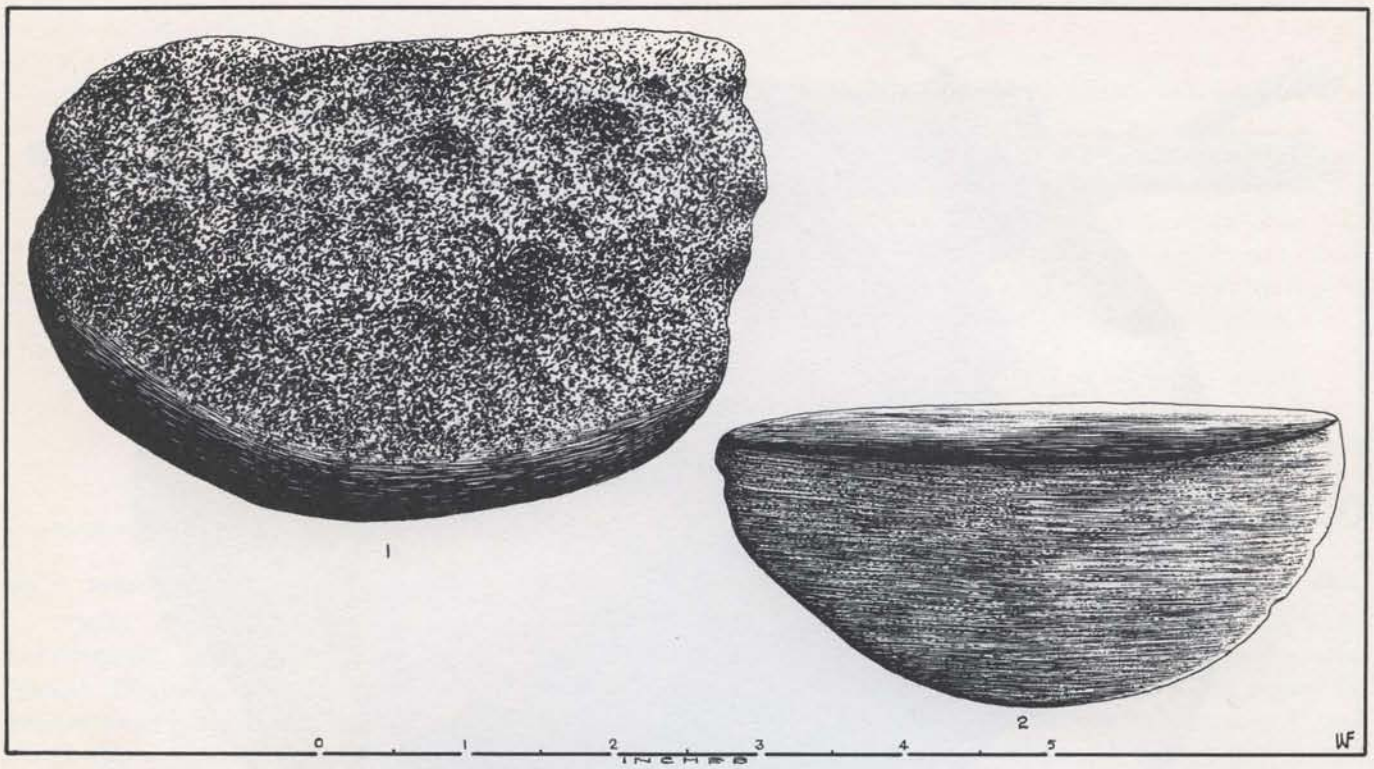

Fig. 5. PROBABLE ULU SOURCE. 1, Ulu Source Blade (Titicut); 2, Ulu (Early Archaic).

will be recalled that these hearths held charred remains of small sticks, suggesting a tundra environment. They are presumed to represent an early aspect of the Early Archaic, and although they were for the most part devoid of artifacts of any importance, there was one exception. Out of one of them came a unique knife, which is worthy of notice (Fig. 5). It lay directly in the fire pit, but had not been subjected to heat so far as could be determined. Made of semi-hard stone, it has a straight back with a broad semi-lunar blade, and a sharply honed cutting edge. With about a ½″ thickness, it has been shaped by pecking, only the cutting edge being ground. Up to this point it embraces traits, which somewhat resemble those of an Ulu. However, it departs from this knife type by virtue of prominent side-notching at both ends of the blade. As found on later day Abrading-scrapers of the Late Archaic stone bowl quarrying, these notches are believed to have held thongs in place, which were wound around the blade to serve as a handle. While the Titicut specimen is the only one of its kind to appear, it offers a strong suggestion that here may have been the forerunner of the all-over ground Ulu of the Early Archaic that followed. Its low stratigraphic position with transitional implications from the Paleo certainly tends to confirm such a belief.

WOODEN DISHES. In colonial times it is known that native tribes from here to Canada made and used wooden shallow bowls for eating purposes. Food was served in these containers to visitors, like Champlain, who recounts such an event. Preserved specimens of such wooden bowls are to be seen in numerous museums including the Deerfield Museum in Old Deerfield. However, not until Wapanucket 6 was excavated did anyone know that woodworking of this kind antedated colonial days. It is now clear from recoveries at this Late Archaic site that shallow bowls, or what appear to be more like dishes, about 6 - 7″ long were scraped out of wood. Of three remains, preserved by virtue of their reduction to a charred state in a cremation, one was successfully hardened with plastic spray and removed from a secondary burial (Fig. 6). It has been restored and is on display in the Bronson Museum. Fortunately, fire had only charred the wood, and had not completely destroyed surface scrape marks still discernible on its bottom. These indicate that stone tool scraping had been used in its finishing. Here then at this site, the making of wooden dishes had taken place about 4,300 years ago during the early days of the Late Archaic. How much earlier they were made, if any, is still unknown. And the wonder is, specifically, how they were contrived with only stone tools and fire available. There is enough of the wood graining still left on the dish to indicate it was not made from a burl, as was the practice in more recent times. How, then, was the original

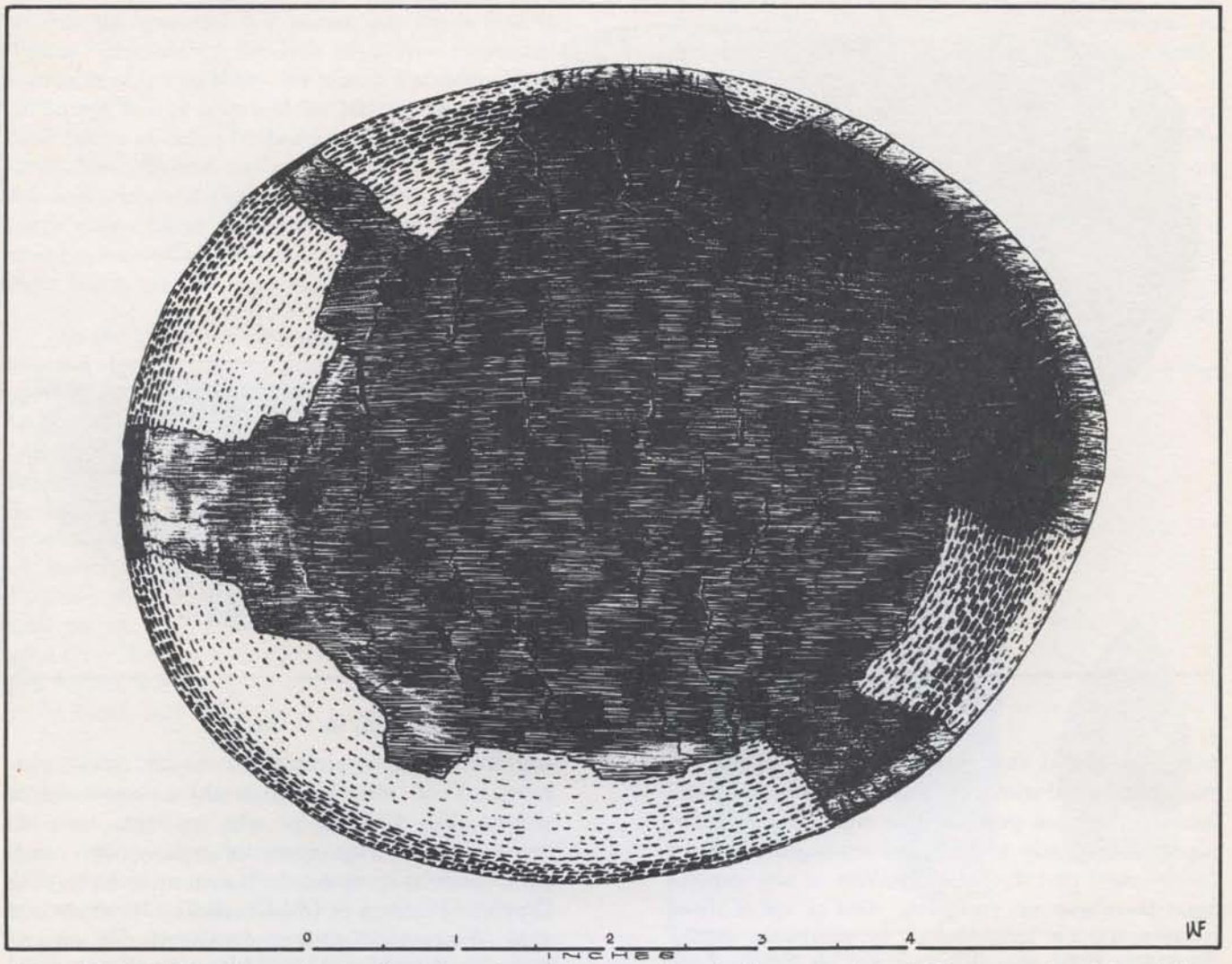

Fig. 6. WOODEN DISH, Wapanucket 6. Changed to charcoal in a cremation, thereby preserved for 4,300 years — dotted lines indicate restored areas.

block of wood obtained, 2″ thick by about 7 - 8″ square, when to produce such a block would have required first the felling of a large tree by fire and stone ax? There is still much to be discovered before such questions can be answered.

BONE HARPOON HOLDER AND STONE POINT. Another recovery at the Wapanucket dig, not yet reported, is especially worthy of mention here, since it carries culture implications of a far-reaching nature. It appeared deep in the subsoil and is presumed to belong to an early phase of the Archaic, probably at the end of the Early Archaic Age. A bone harpoon holder with stone point in place, it consists of a flat bone shaft about 4¼″ long, expertly fashioned to hold a stone point at one end, with a socket drilled at the other to accommodate end of the spear shaft. In the center, a ¼″ hole provides the means for attaching the rope that connects the hunter with his quarry, after impact with the seal, which breaks the connection and releases the shaft. A Corner-removed #9 stone point, a diagnostic of the Early Archaic, was still in place at one end, but the thongs had rotted away. Illustration is provided to show probable method in its use (Fig. 7, #1). Since this type of point is without barbs, they had to be added. This may have been accomplished with a fish bone on either side lashed on with the point. The Bifurcated point with sharp barbs is known as a diagnostic of the Early Archaic, too, and presumably is a specialized harpoon point that provides its own barbs.

Along side of this recovery is shown a more recent Eskimo bone harpoon holder and steel point from Alaska (Fig. 7, #2). The similarity between the two is remarkable, and might support the theory of an Early Archaic exodus north from this area, in which hunting traits were passed on to Eskimo migrants to America of a later day. Dependence upon caribou as the source of food and clothing might have induced the movement north, as herds of caribou followed the retreating tundra, which now has become the Barrens of Canada.

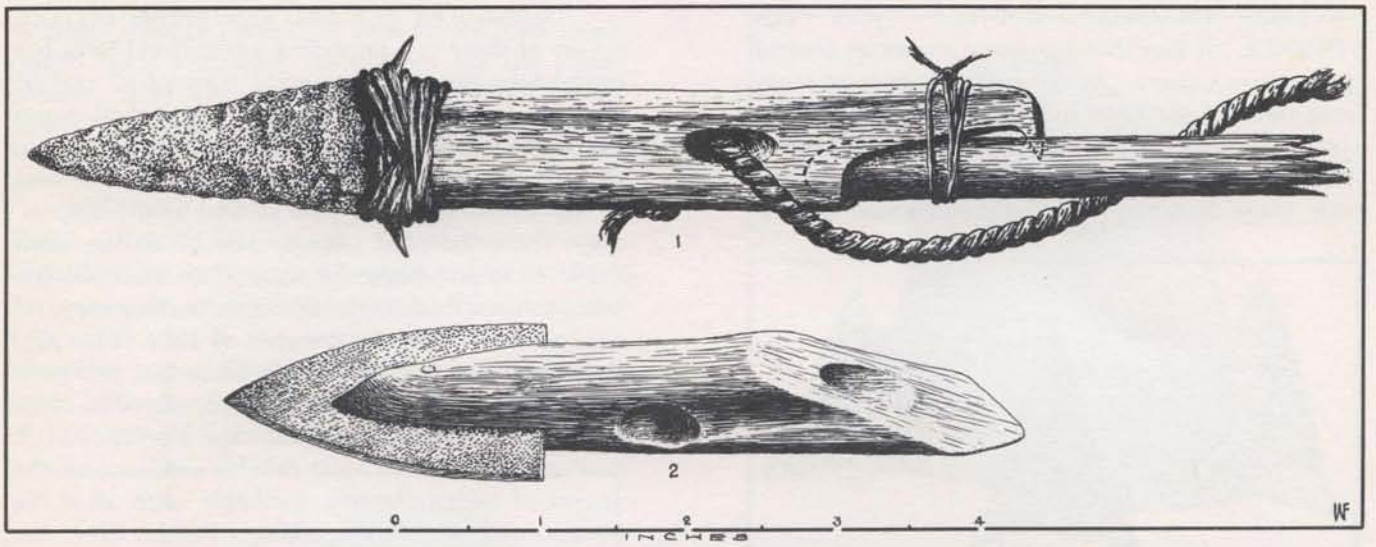

Fig. 7. BONE HARPOON HOLDER AND DEMOUNTABLE POINT. 1, Early Archaic Harpoon (Wapanucket 5); 2, Recent Eskimo Harpoon (Alaska).

OVAL ATLATL WEIGHT — EARLY ARCHAIC DIAGNOSTIC. During the early years of the Society, Oval and Wing atlatl weights were called bannerstones (Fig. 8). It was not until certain evidence appeared at the Wapanucket and Nunkatusset sites that it was possible to say that the Oval type belongs to the Early Archaic, preceding the Late Archaic. Since then, culture separation between these two types of atlatl weights has been supported by evidence at other sites, including the Wing type at Ragged Mountain stone bowl quarry.

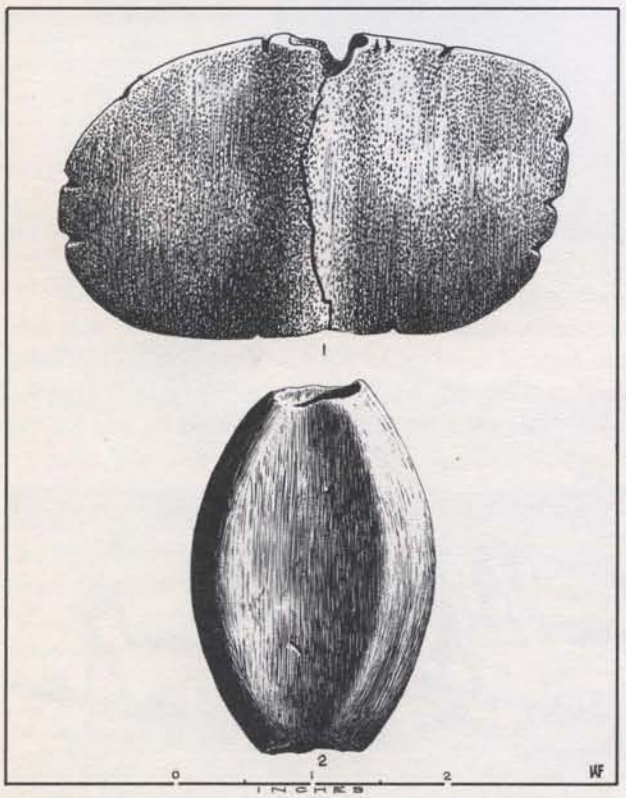

Fig. 8. ATLATL WEIGHTS. 1, Wing (Ragged Mt. Quarry — Late Archaic); 2, Oval (Early Archaic).

SMALL TRIANGULAR POINTS — THEIR CULTURE DIFFERENCES. These relatively small points have been generally referred to without regard to any change in shape from one culture zone to another until quite recently. At Wapanucket 6 and subsequently at other sites a significant shape trend has been in evidence, which seems important to note. It is now a recorded fact that in Late Archaic times certain small Eared #4 points were used, which resemble the Small Triangular type except for the presence of ears. They appear to be displaced later on in the Late Archaic by Small Triangular points, which consistently have convex lateral sides and concave bases (Fig. 9). As the Ceramic zone is reached, lateral sides of this type tend to become straight to concave, while bases are more often straight than concave. Hence, Small Triangular #1,3,4, and occasionally #6 are generally found in the Late Archaic zone, while Small Triangular #5 and its variant with concave sides and base appears above in the Ceramic zone.

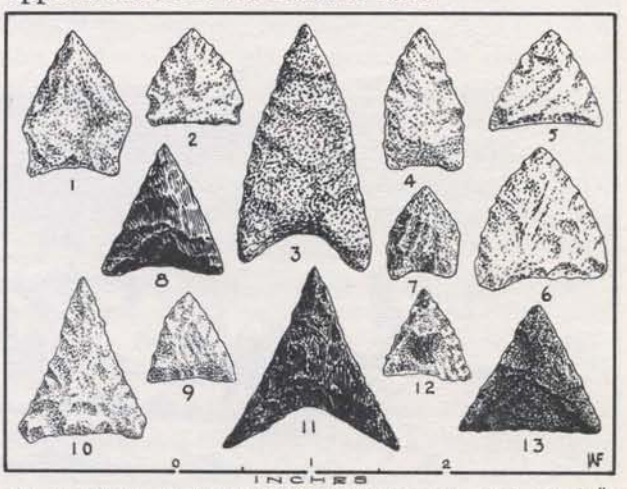

Fig. 9. SMALL TRIANGULAR POINT EVOLUTION. 1, 2, Eared #4 (Late Archaic); 3-7, Small Triangular (Late Archaic); 8-13, Small Triangular (Ceramic).

LARGE TRIANGULAR POINTS — THEIR PROVENIENCE. A fact that has been proven at several sites, where Ceramic Age remains are present overlying those of the Late Archaic, has to do with the source of the Large Triangular type of point. Excavations have shown that this point appears first with Stage 2 potsherds, with indications that it started slightly earlier at the close of Stage 1 times. Another significant discovery lies in the overlapping of the broad-bladed Eared #2 point from end of the Late Archaic into Stage 1 pottery times. Because these two types of points are similar in size and shape, interpretation of this evidence might be that the Large Triangular type emerged from the Eared type by the removal of ears as of no further value (Fig 10).

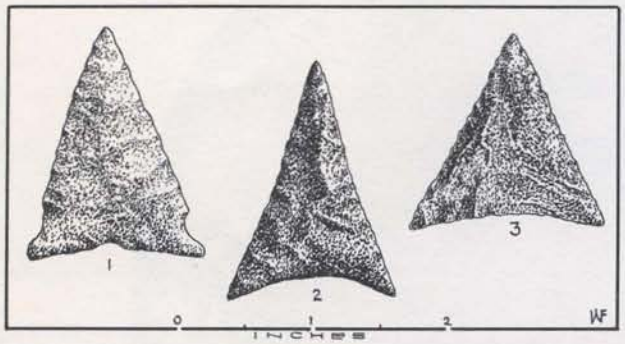

Fig. 10. LARGE TRIANGULAR POINT EVOLUTION. 1, Eared #2 (Late Archaic); 2,3, Large Triangular (Ceramic).

TRIANGULAR HOE AND CORN-PLANTER. Discovery of these two important agricultural tools has completely altered the general concept of certain flat stone implements. For years, flat worked stones have been loosely talked about as hoe blades. More recently, however, they have been found to belong to the classifications of spades and Oval scrapers. Since then, the most popular hoe blade has been shown to have a triangular shape with thick oblique base, as described in the Society classification, and confirmed by Lafitau's drawing of 1724 (Fig. 11). It appears not only as surface finds, but has been repeatedly recovered at excavations, where its earliest appearance has been with Stage 1 potsherds. It now seems to be the most reliable evidence of the arrival of maize planting, probably soon after the introduction of pottery making. Furthermore, because it resembles the Triangular tailing-breaker of the stone bowl quarries and comes later in point of time, it is believed to have been inspired by the tailing-breaker.

The Corn-planter, a 6 - 7″ elongated stone roughly flaked with a stubby point at one end, has been shown by Lafitau's drawing of Huron women planting corn, to be a dibble (Fig. 11). It was used to punch holes in corn hills, into which the kernels were dropped. With the occurrence of Spiked tailing-breakers in all but western Massachusetts stone bowl quarries, where Triangular tailing-

Fig. 11. CORN CULTIVATION AMONG THE HURONS (Copy)—From J. F. Lafitau: Moeurs des Sauvages Ameriquains, Vol. 2, p. 155, Paris, 1724.

breakers appear instead, it is believed that these quarry tools furnished the pattern for the Corn-planter. Also, from the Hand spade of the quarries seems to have evolved the improved Stem spade of the planters.

GROOVED AND CHANNELED GOUGES — THEIR CULTURE RELATIONS. On numerous occasions the Grooved gouge has appeared in the Late Archaic zone at site excavations. However, the finding of one in the workshop of the Ragged Mountain stone bowl quarry furnished definite proof of this tool's diagnostic value as an indicator of the industrial Late Archaic era (Fig. 12, #1).

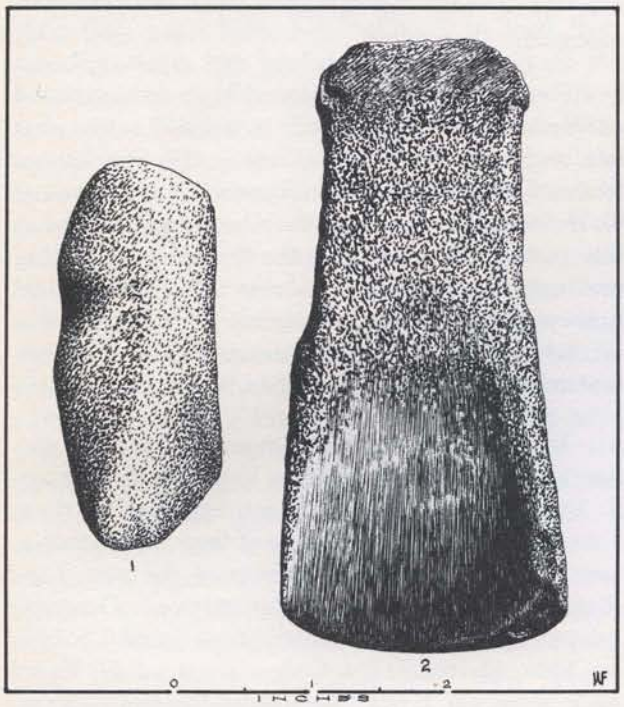

Fig. 12. GOUGE CULTURE RELATIONS. 1, Grooved Gouge (Ragged Mt. Quarry — Late Archaic); 2, Channeled Gouge (Early Archaic).

When it comes to the Channeled gouge, the situation changes. This tool has a wide channel with a flat trough on the back of its stem instead of a groove with rounded trough (Fig. 12, #2). It has never been found in stone bowl quarries, and until recently has not been recovered from site digs. However, it has been located in situ at the Twin Rivers site, and now more recently — two specimens lying side by side have been excavated at the Swan Hold site from deep in the Early Archaic zone by a Society member. This places its culture relation quite definitely in that early age.

GROOVED AX — ITS CULTURE RELATION. In the course of excavation of archaeological stratified sites, the Grooved ax has been located repeatedly in the Late Archaic zone, of which it has been held to be an important diagnostic. In support of this

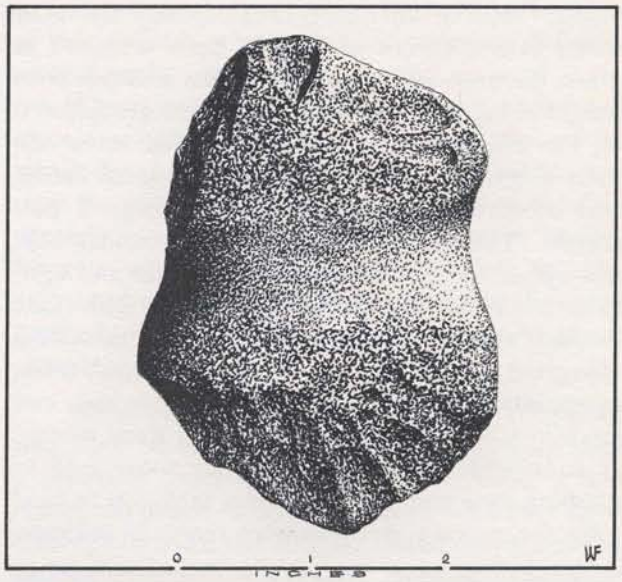

Fig. 13. FULL GROOVED AX (Worn-out), Wilbraham Quarry (Late Archaic).

position, a worn-out specimen was recovered from the Wilbraham stone bowl quarry (Fig. 13), and a fractured one from the Westfield quarry. These finds leave no doubt as to its connection with this industrial age.

ULU — ITS CULTURE RELATION. At the Titicut site, repeated recoveries were made of fractured segments of Ulus occurring in the Early Archaic zone, with the semi-lunar probable forerunner, already reported, lying in one of the small unique stone hearths on white sand, the beginning of this culture period. However, not until recovery at the Washakumaug site in Framingham by Robert Carlson, a Society member, of a perfect Ulu and two fragments, lying deep in the Early Archaic zone, has this culture relation been substantiated. (Bulletin, Vol. 25, No. 2). Now it seems clear that this early age is the source of the Ulu, especially as all knife blades appearing in stone bowl quarries have been of the Stem and Stemless types. As a result of this well-established fact together with appearance of the Channeled gouge, also, in the Early Archaic, the old belief held by some that the grinding technique was not used in this culture period can now be discarded.

PESTLE PROVENIENCE. Twenty-five years ago, acceptance of the pestle as a diagnostic of the advent of maize was quite general in archaeological thinking. However, over the years of Society research, repeated recoveries of certain types of pestles occurring in the Late Archaic zone have cast doubt upon this old assumption. Either the arrival of maize took place earlier in the Archaic Age before the coming of pottery, or else the Archaic pestle was used for mashing something other than

maize. Since in other parts of the country arrival of maize and ceramics is held to have occurred at about the same time, evidence in this area has been sought to support this belief. As previously referred to, the Triangular hoe is now believed to be the most diagnostic evidence of the arrival of maize, and its earliest appearance is with Stage 1 potsherds. This seems to support the previously held concept of the coeval arrival of ceramics and agriculture. Now, the pestle type found with Late Archaic remains appears either as an unworked elongated cobble, or a worked cylindrical form, comparatively short and with the grinding end worn to a conical shape from use in a stone mortar. It is believed that Archaic pestles were used in mashing nuts and even bones for inclusion in food mixtures, as excavated evidence seems to indicate.

DISCOVERIES IN NEW ENGLAND STONE BOWL QUARRIES

Eight seasons of intensive excavations have been carried on in seven steatite quarries of the Late Archaic industrial era: Westfield and Wilbraham, Connecticut Valley of Massachusetts; Dolly Bond, Eight Lots, and Millbury, central Massachusetts; Oaklawn, Rhode Island; and Ragged Mountain, northwestern Connecticut. Artifact recoveries reveal general similarity of tool types with only a few exceptions. This supports a belief in probable industrial contacts to a greater or lesser extent. At two quarries — Oaklawn and Ragged Mountain — domestic activity was clearly in evidence with recovery of stone hearths and domestic implements, such as knives, projectile points, and other hunting equipment. At the other quarries, living quarters of the quarriers were not located, which precluded recovery of domestic implements to any great extent.

Relatively large quarry tools have been reported in the past from quarry excavations carried on in regions to the south throughout the Appalachians, wherever outcrops of steatite provided suitable material for quarrying. These have included, picks, chisels, and mauls. Likewise, these tools are standard equipment in New England quarries. However, in addition, smaller specialized tools have been identified in this northern region, with traces of some appearing as far south as the Christiana quarry of Pennsylvania. Because of the greater quantity of these small tools in New England, probability of their invention and early development here becomes more apparent. They consist of: Abrading-scraper, Shaver, Hand gouge, Chisel-scraper, minute End pick, Flake scraper, and Abradingstone.

Perhaps the most significant discovery at the quarries has been that of tailing-removal tools. From western Massachusetts quarries they consist of Triangular tailing-breaker and Hand spade. At other quarries they comprise, Spiked tailing-breaker and Hand spade, although at each of two of these quarries one Triangular tailing-breaker was recovered. This seems to suggest that an invention of western Massachusetts quarries was just beginning to spread to other quarries, when they closed down. Presence of this tailing-removal equipment seems to be a significant discovery, since failure to locate it at quarries in Virginia and in the Potomac Valley was reported by Holmes in 1893. Whether it was there, too, but failed to be recognized is unknown.

Evidence of stone pipe making was observed at Westfield and Wilbraham to a small extent, but to a very large extent at Oaklawn. It is now known from a Carbon-14 measure of associated charcoal at Oaklawn that stone pipes were being made there as late as A.D. 731, or during the first stage of pottery making. Presumably, this was after stone bowl quarrying operations had ceased. Perhaps, the late arrival of pipe making prevented to any great extent its spread to other quarries so far inspected.

It may serve a good purpose to close this section about stone bowl quarries by listing the domestic implement types, which have appeared at these Late Archaic stations. Because of their close association with this industrial activity of the age, their diagnostic significance is impressive. Domestic quarry traits consist of: Small Stem, Small Triangular, Side-notched #1,3,4, Corner-removed #7, Eared #2,3 projectile types; Stem and Stemless knives; Pronged club; Grooved ax; Grooved gouge; and Wing atlatl weight.

POSTULATIONS BASED ON QUARRY DISCOVERIES. Throughout excavations of quarries to the south by Holmes in the late 19th century, a search was made in vain in an effort to locate camps or living areas used by the workmen. In New England repeated efforts to obtain this kind of evidence, finally, were successful. At Ragged Mountain were hearths and a rock shelter, while at Oaklawn was a hearth at the edge of the workings. At both sites a sizable number of projectile points, knives, and other tools were recovered. At Ragged Mountain, because of the commodious living accommodations in the rock shelter of the quarry, and the well established arrangements made for cooking on stone hearths at the end of the shelter, the postulation that a lean-to was built against the overhang seems sound. With sleeping quarters available in rock

recesses, within, the thought that family groups must have attended quarry operations becomes a conviction. If only men were present, it seems unlikely — under a primitive way of life — that they would have gone to the trouble of making stone hearths and building such a well-constructed living abode. At least this premise seems to fit the postulation that follows concerning participation of women in the work of quarrying.

Until this excavation and subsequent ones had been made, the universal belief was that men alone went to the quarries. They were presumed to have performed all the work of cutting out and making the stone products of their labor. If this were so, then they must have been obliged to load their stone products into baskets and tote them all the way back to their home sites, whether they liked it or not. Without a division of labor to ease the work, such concentration of effort placed in the hands of the men would seem almost too much to have been expected. Then with the finding of tailing-removal tools, usually made of impure granite unsuitable for working steatite, attention was attracted to the possible connection between them and agricultural tools of the age that followed. In this comparison, the close similarity that exists between the planter's Triangular hoe on the one hand and the quarry Triangular tailing-breaker on the other, and in like manner between the Corn-planter and the quarry Spiked tailing-breaker is striking. Further, a connection seems to exist between the planter's Stem spade and quarry Hand spade. When all of these factors are taken into consideration, a postulation that the planter's tools were modifications emerging from their quarry counterparts is inescapable.

Assuming now that this inspired tool development took place, what was the force behind it that apparently made it inevitable? To answer this question, it should be remembered that stone bowl quarrying had been going on for a very long time, probably for more than a thousand years under male domination. And at the time of the advent of maize planting, which may have followed close on the closing of the quarries, an industrial tradition involving tools and work techniques had become an impelling force of the day. Still another important factor is the strong probability that women became the planters, or they would not have had the skill and knowledge that made them the cultivators of maize in colonial times. Therefore, seemingly what happened was that the prevailing quarry tradition had become so much a part of their lives that in developing new agricultural tools, women felt impelled to copy old tool types.

From this the postulation follows that because of the probable relation between the two different sets of tools, correspondingly, the users of them would have been women. That is to say, traditional ideas tend to be perpetuated within the sex to which they belong. Therefore, allowing that women were the planters from the beginning, the inevitable conclusion seems to be that women were quarry laborers, whose job was to remove quarry tailings, or waste from the workings, and transport the stone products of the quarry in baskets to their home camps.

When consideration is given to the probability that stone bowl quarrying continued for more than a thousand years under male supervision, it becomes important to try to envision what may have taken place when the quarries closed down, and the making of stone bowls ceased. In order to evaluate the evolving state of affairs, it is necessary to consider the manufactured article that replaced stone bowls as the family cooking pot. This was the ceramic clay pot, which from the time of its inception became the means of providing a lighter weight and more easily produced cooking vessel for liquid foods. Now, since women were the potters in colonial days, they must have been from the start in order to have acquired the skill required in making the more elaborate pots of the final Stage 4 development. With this probability in mind, it seems logical to conclude that an industrial revolution took place with the introduction of ceramics; the industrial talents of women replaced those of men. Women became makers of ceramic cooking pots and no longer wanted the former heavy stone bowls. The demand for them came to an end, which forced the quarries to close. Men were the losers with their skilled labor in industry no longer required; industrial power had passed into the hands of women.

CERAMIC DISCOVERIES

During the first site excavations, little was known about what went on here in New England during the Ceramic Age. Reliance was placed quite generally upon evidence presented by C. C. Willoughby in, *Antiquities of the New England Indians.* Attention was called to certain restored pots having pointed bases and simple design markings as being old, since they were recovered from the lower part of Maine shellheaps. With only a small amount of evidence from other parts of New England to work with, attention was focused on research in New York State, as reported by W. A. Ritchie in, *Pre-Iroquoian Occupations of New York State.* In this book, Vinette 1 pottery was described

and presented as the earliest known evidence of ceramics in New York State. From then on, excavators in the New England coastal area were on the lookout for potsherds with similar traits, of which combination of a cord-marked interior and exterior was essential. Sometime later, a site was excavated in Andover, where Vinette 1 sherds were reported lying at the bottom of ceramic evidence. They were presumed, therefore, to represent an early phase of pottery making in New England like Vinette 1 in New York State.

Years went by without further progress in ceramic discoveries, except for a small amount of evidence from an occasional site here or there. At last a prolific ceramic site was excavated by the Narragansett Archaeological Society of Rhode Island on Narragansett Bay, where a relatively large concentration of potsherds existed, mixed with a quantity of shell refuse liberally scattered over the site. At this Sweet-Meadow Brook site, quantities of sherds of many different kinds were recovered, representing the remains of doubtless more than a hundred pots. It was here that much of what is known today about the development of pottery making in New England was acquired. However, it should be said that many other recoveries of pots were made elsewhere at about the same time, which have added greatly in supporting and enlarging the present analysis.

After thoroughly documenting the Sweet-Meadow Brook recoveries as to their respective levels on which they occurred, a well-established pattern of ceramic development was traced. From the first imperfect attempts of the potters, it extended without interruption through all but the fourth and last stage, which was influenced by the diffusion of Iroquoian styling. This development was supplemented by recoveries from other sites revealing the last stage with enough stratigraphic evidence to establish its final ceramic position. The decision was made to consider ceramic advance in terms of stages, rather than conform to standard professional practice and use site names to denote specific pottery types, wherever found or reported first. For, it was felt that dependence upon an accumulation of such types would be confusing, with a resulting host of names difficult to remember. On the other hand, evidence at Sweet-Meadow Brook site, in Rhode Island, was so complete in stratigraphic sequence of ceramic evolution that failure to utilize it seemed the height of folly. Therefore, its pottery data became the basis for ceramic evaluation.

The first three of four stages of development were clearly indicated, one over the other. At the bottom appeared sherds from the earliest pottery. It lay at the bottom of the shell refuse, and in several cases represented sizable sections of pots broken into smaller sherds. These remains revealed pots with conoidal shapes having pointed bases, cord-marked inside and out, straight necks, irregular rounded rims, coarse mineral temper, and no designs. Doubtless, this pottery equates with Vinette 1, but is known here under the title of Stage 1 pottery. This direct approach to its chronological position allows ready reference to it without adding a site name to be remembered. Certain of its sherds suggest that toward the close of the period simple elemental designs were attempted. They seem to represent the beginning of pottery embellishment that forms an important part of the following stage.

Stage 2 potsherds appeared in a zone just above. There were enough of several pots to effect restorations of large segments, which, together with scattered sherds, furnished many of the traits, which go to make up this second type of pottery. Perhaps the first thing to note is that while the pointed based conical shape is retained, interior cord-marking is replaced by either a smooth surface finger-wiping, or more frequently stick-wiping. This latter technique often cut obliquely across coiling; was doubtless used to help fasten the coils more effectively together. Other traits are, medium mineral or shell temper, straight to constricted neck, flat rim with simple jab decorations, smooth or sometimes stick-wiped and cord-marked exterior, and generally with simple decorations covering part of the neck. Designing techniques include, punctate, dentate, rocker-stamp, trailing, push-and-pull, cord-wrapped stick, and thumbnail or stick jabs. Frequently, two or more of these are combined to form decorations pleasing to the potter. A decided advance was made during this period. Pots were strengthened with a trend toward new shape variations, while design work began to embellish their exterior.

Evidence at the site revealed stone pipes still being made during this period, probably by the men, but in a new bowl type form with reed stem inserted. By now, potters had achieved the making of elbow clay pipes, the first of which were rather rudely made.

Stage 3 sherds with more advanced traits appeared just above those of the second development stage, leaving no doubt that another period of progress had been reached. A look at this third stage pottery reveals modifications, some of which

undoubtedly represent improvements over previous attempts. First, it should be noted that in this pottery the base tends to be less pointed, although some side walls remain more or less straight as before. There is more elaboration of design treatments with geometric figures much in evidence, as well as an overall herringbone motif. Decorations are produced by dentate stamping, or are incised—its first appearance—and often extend further down the pot's body. Rims are sometimes bisected with the same marker that was used for the body design work, and occasionally, a simple decoration is extended a short way down on the inside of the rim. But a real improvement seems to have been in a new way of strengthening the rim, which up until then, usually, had been thinner than the rest of the pot. No doubt the weakness of this type of construction finally became apparent, after repeated injuries to the rim occurred, as a result of everyday usage. By pinching on another coil of clay around the rim, a kind of laminated collar was formed with an abrupt neck constriction resulting. This thickened collar was a distinct departure from anything that had been conceived up to that time. It stiffened the rim, which was flat, and doubtless made it more durable. When rims were not laminated, usually they continued to be flat, evenly formed, and had well-developed uniform design treatments — some quite elaborate, such as a twisted rope design. Occasionally, the collar, when present, is rather wide with the pot's body flaring from it — the neck in this case becomes the lower portion of the collar. The pots of this period have plain interiors with occasional presence of stick-wiping; are as a rule cord-marked outside. They may have either shell, vegetable or medium mineral temper.

At Titicut and other sites, Stage 4 potsherds have appeared and have been found to have a late stratigraphic position, thereby placing them in the last pottery stage of the 1,300 years of ceramic development. As might be expected, Stage 4 pots display evidence of the highest degree of skill. They have Iroquoian-modified traits quite generally and are thought to have been influenced by contacts of some sort with the Iroquois culture. Their pressed-out castellated collars covered with meticulous design motifs — chevrons much in evidence — are reminiscent of Iroquois pots. But instead of having their full-globular shape, are almost always semi-globular, with rudimentary remains of the traditional pointed base still discernible. Designs are either incised with a stylus, or are made by line dentate stamping. The ware is expertly made, so that no longer does it separate between coils as formerly. It is always plain tool-smoothed inside, and generally is cord-marked and smoothed over outside. Fine mineral, shell, and vegetable temper are used interchangeably. Rims are usually flat and decorated with design work, often extending a short way down on the inside of the rim.

CLASSIFICATION AND NOMENCLATURE OF IMPLEMENTS

From the time the Society was organized, along with other archaeological groups, a need was felt for some practical system by which implements might be recognized by name. Too often an implement carried more than one title, each having apparent validity. Not only this, but projectile points were in great confusion without anyone being sure what the difference was, for instance, between two forms with somewhat similar characteristics. For many years during several attempts at designating type divisions, certain professionally inspired advice insisted that a type should be identified with no attention paid to its associated culture or age. However, enough excavating in the field had been done by that time to impress some with the need of recognizing artifact culture relations in a new attempt to classify implements.

In the matter of creating names for projectile point types, it was the established practice then, and still is, to assign a site name or geographical location to a certain type, where specimens of it were first found. This procedure has become firmly fixed in archaeological authorized dogma. So much so that at the present time there is such a multiplicity of place names attached to different projectile types that probably, no one, professional or amateur, is able to remember them all. Another bad feature of this naming practice is that it leads to a race to see who can get their title recorded first. As a result of such competition, a similar type occurring in divers parts of the country may be given several different names — in one case as many as five have been attached to it. This method leads inevitably to confusion and unnecessary argument, with no one sure of which name to use. When careful thought is given to this subject, it soon becomes evident that some better way of establishing identifications should be sought. Furthermore, so far as culture association is concerned, a site name often is misleading, since usually more than one culture is to be found at most sites. And today the thinking of many is that culture affiliation should be taken into consideration when formulating suitable names and class groups for most types. For example, take two different point forms, which are the same except for what appears to be

a minor variation. If no other consideration is entertained, they might be put into the same class, their slight difference being misconstrued as a fortuitous variation due to stone or maker. On the other hand, through site excavating, each might be found on successive occasions in separate culture zones, one earlier than the other. In this event, it might be desirable to establish a different type for each — their trait variation proven to be intentional and therefore significant. From this it is clear that determining the culture relation of any type of point, or other artifact for that matter, whenever possible, is an important factor in establishing a realistic classification.

Another trouble spot has been in the matter of differentiation between arrow and spear points for the purpose of giving them separate recognition in the classification. This has produced a long battle of minds with several approaches tried out. The problem has now been resolved by disavowing the need for a separation. Thus, concentration on just one projectile point classification has proved beneficial in placing emphasis on point types without regard to their specific use for arrows or spears. For it was realized that the two kinds of projectiles have base traits that are usually similar and need no separation. And when they are dissimilar their types will of necessity stand alone as indicating separate projectile types.

It seems to be the practice in projectile nomenclature systems, when establishing a type, to include its many variations in its title, no matter how insignificant they may seem to some. This tends to lengthen the type name into an unworkable designation that is difficult to remember. It has been found through excavations that certain of these variations occur within a single type class belonging to one of the culture periods; are not important as separate class traits. Therefore, it has seemed irrelevant to use them in setting one point type off against another in the same class group. Instead, numerals used to identify such type variations have been found to be more easily remembered, than long descriptive names. This has resulted in main titles being applied to type groups with numerals as subtitles to denote group variations.

In deliberating these problems, the Society realized the importance of simplicity in developing a suitable nomenclature. Therefore, it discarded the use of place names as creating a needless quantity of meaningless terms, which would only produce confusion in the minds of those it was trying to serve. Instead, it seemed more logical to create phrases, which would tend to describe the salient traits of each distinctive type. Over a period of fifteen or more years, several preliminary systems were developed and put to use. Each was found to need modifying in some particular, either in simplifying certain type names, or in eliminating a type here or there, which was found to be a fortuitous variation of an already established type.

The present classification, in the Society Bulletin, Vol. 25, No. 1, represents the ultimate result of this exploratory work. In the projectile point field, the types presented cover all those which have occurred repeatedly at various sites in the New England area. However, the ground slate blades of Maine are not included, as they seem to be in a class by themselves, not an integral part of chipped blades. Too little is known about them as to their culture relation, which is still under investigation. And there may be certain types of chipped points, which as yet have not been sufficiently substantiated by repeated recoveries to warrant inclusion. For example, in the Large Triangular type are shown three prevalent variations, although there are known to be others, which are not illustrated. One of these is a new arrival, excavated at a Duxbury site. Because of its unique shape with a base that tapers sharply to a central point, it is included in the printed description, only. It seems to belong in the Large Triangular group, since more than one occurred at the site along side of quantities of standard Large Triangular points. These were part of the evidence, which proved this site to be a pure Ceramic culture occupation. Therefore, these new styled blades seem to be a variation of the Large Triangular type.

In naming the various types, simple, short descriptive titles have been created, which represent the most outstanding traits. This method of identification is carried throughout the classification for all kinds of stone implements. For instance, the Paleo point with a flute running up each face is simply called a Fluted point. This appears to be descriptive enough and all that is necessary to give it Paleo status. It seems unnecessary to pose the question as to whether its form equates best with any one of a number of place-name titles of this fluted point in other parts of the country, such as Clovis, Folsom, Ohio, Cumberland, etc. For it would appear futile to assume relation between New England specimens and those, let us say, in Arizona, just because they resemble their shape, considering the thousands of miles that separate them. Especially is this so, when consideration is given to the varying shapes of these points which

appear at different sites in the same area, and even sometimes at the same site. In place of the diffusion theory, it could be that the varying shapes are as a result of the ingenuity of their makers.

Or for example, take the naming of a large implement — the gouge. The distinguishing trait is that which determines the shape of its stem. In one case, it is left perfectly plain, which prompts the name Plain gouge for this type. In another, a groove with rounded trough that runs across the back of the stem to keep hafting thongs in place inspires the name Grooved gouge. In still another, a relatively wide channel with flat trough, often extending nearly the length of the stem across its back, suggests the name Channeled gouge. Incidentally, it has been proven beyond a doubt, as has already been stated, that the last two types represent separate culture periods. The Grooved belongs in the Late Archaic, the Channeled in the Early Archaic, which demonstrates the wisdom of separating them into two types.

In any comprehensive classification it is necessary to use care and place in separate categories implements that may seem closely related, but probably have different functions. For instance, take small axes and clubs. In the past, many have held these two implement forms to be interchangeable under one heading. But the Society's classification has found marked differences between them, which has seemed significant enough to warrant establishing a separate class for each. The reasons back of this separation seem quite obvious when submitted to careful analysis. Hatchet, is the name given to a small ax without a groove; its shank is chipped into shape and it has a honed cutting blade. This sharpening by grinding would seem to indicate an intent to make this tool capable of cutting wood. William Wood, an early 17th century commentator, in describing the making of a dugout canoe, refers to implements presumably similar to this type, when he says: "cutting their out-sides with stone-hatchets." From this the classified Hatchet with ground cutting edge would seem to fit the case best. On the other hand, an implement having a chipped blade without a ground cutting edge appears to have been intended for use as a club, as it is obviously unsuited for cutting wood. Excavation of a typical hunting site has yielded such clubs, exclusive of the ground edge type which seems to support separation of these two kinds of implements into different type classes.

The classification of stone implements, which the Society has now completed seems a fitting climax to twenty-five years of growth. It embraces implement types common to all of New England. It appears evident that all of the region east of the Appalachians and north of Long Island Sound, now divided up into six New England states, was once a contiguous culture area, all parts of which could have been reached conveniently by canoe or foot travel. However, appearance of certain implement modifications in Maine leads to the belief that cultural development there may have passed through a somewhat different pattern than in areas to the south. Nevertheless, the basic implement types seem to have extended into Maine with a few exceptions. For example, one or two of its chipped projectile point types resemble certain New York State types. This may indicate contact of some kind with the cultural life to the west with a subsequent diffusion of ideas. Or it could mean importation of actual projectile points from outside regions. A similar condition is noted in southern Connecticut on some sites, where recoveries occasionally appear, in which points seem to have traits equating with certain New York State blades. Because of such diffusive probabilities, these point types have not been included in the classification.

SOME UNUSUAL ARTIFACTS FROM RAM PASTURE I, NANTUCKET, MASS.

BERNARD H. STOCKLEY

(Illustrations by Patricia Gardner)

In the early summer of 1962 the Shawkemo Chapter of the Massachusetts Archaeological Society began excavation, under the direction of the author, of a village site near the shore of Hummock Pond on Nantucket Island, Mass. During the 1962 season a total of 1710 square feet was excavated, and evidence of a two-culture (Late Archaic and Ceramic-Agricultural) sequence was found. Work will continue at the site, known as "Ram Pasture I" through 1963 and possibly for several more seasons. A total of 359 artifacts, exclusive of potsherds, were found during the first season, and 60 archaeological "features" — fire and refuse pits, hearths, and a possible burial were excavated.

A few of the artifacts are unusual, and it seems desirable to describe them at this time rather than wait until publication of a full report some years hence. The first of these unusual artifacts is a complete ceramic obtuse angle pipe (Fig. 14, No. 1). This is made of light brown clay, well fired and quite durable. No tempering material could be observed. Incised decoration is in the shape of diamonds on one side of the bowl but degenerates to rather random triangles on the opposite side, giving the impression of a hasty and haphazard job.

Fragments of at least 8 other ceramic pipes were found. All appear to have been similar in style to the complete specimen, but with considerable variation in design elements and workmanship. One bowl fragment has a small portion of an incised decoration composed of two parallel lines in a geometric pattern, and several different bowls are decorated with tiny, close-spaced, dentate circles covering most of the bowl. One bowl has the tiny dentate circles widely spaced in what appears to be a chevron pattern. The tool which was used to make the circles might have been the end of a small reed or a small bone. Surface decoration was found only on the pipe bowls. Stem shape is usually round, as in the complete pipe, but one is nearly square in cross section. One stem was found with small patches of graphite adhering to the surface.

Close study of the complete pipe and the fragments has provided some information that indicates the probable method of manufacture. The interiors of the stems, as well as some of the bowls, have shallow lengthwise striations which show quite clearly that reeds or small straight twigs were the "form" over which the stems were shaped, and that a larger stick was used as a "form" for the bowl. One bowl fragment, in which the stem hole continues on through the distal end of the bowl, indicates that the "form" was not made in one piece — as might have been done by inserting the stem "form" into a hole drilled at an angle into the bowl "form". The outside of the complete pipe and many of the fragments show marks of a scraping tool.

These observations lead to the hypothesis that the clay was first applied over the "form" in a rough shape. Then, when the clay had partially dried but was still slightly plastic, it was carved and scraped until the desired shape was attained. If smoothing or decoration were to be done it would also be done at this time. The "green" pipe would then be set aside until it had dried completely, after which it would be fired, by whatever method was used, "form" and all. In the firing process the "form" would be wholly or partially burned out, perhaps leaving a little charcoal to be poked out of the stem or bowl. The completed pipe could then be painted with graphite or some other pigment if desired. Probably a reed was then inserted into the stem to serve as a mouthpiece.

The second unusual artifact is a bone amulet or gorget, (Fig. 14, No. 2). This was identified by Joseph H. Waters of the Zoology Department, Duke University, as a vertebra of a small whale, probably Blackfish *(Globicephela malaena)*, which has been shaped and bored. This artifact appears to be unique. A search of available literature turned up only a few reports of bone gorgets. None of these were similar to the illustrated specimen.

Pieces of whalebone were found in several of the refuse pits. However, neither these nor the gorget can be taken as evidence of prehistoric whaling. Whales are occasionally washed ashore on Nantucket even now, although they are now less plentiful in the surrounding waters than they must have been in prehistoric times. Stranded whales were probably the source of the bone found in the pits and the raw material for the gorget.

The third and last of these unusual artifacts is a Large Triangular projectile point (Fig. 14, No. 3). It is of particular interest because of its extreme size

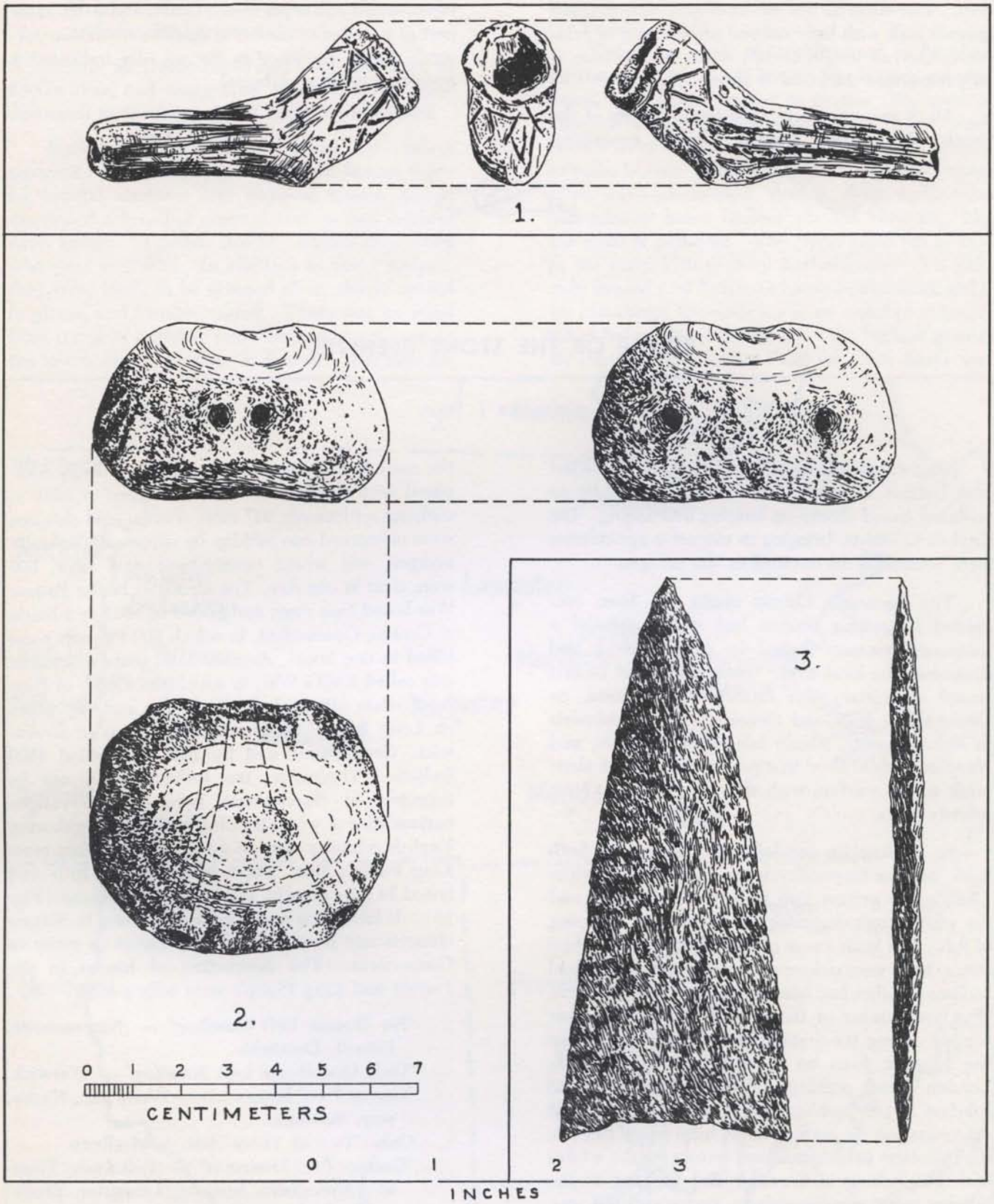

Fig. 14. ARTIFACTS FROM THE CERAMIC-AGRICULTURAL COMPONENT, RAM PASTURE I, Nantucket, Mass. 1, Ceramic Obtuse Angle Pipe; 2, Whalebone Gorget; 3, Large Triangular Projectile Point.

for this type of point, and for its superb craftsmanship. The material is a medium gray, fine grained igneous rock with light colored phenocrysts of feldspar. Overall length is 4½", width at the base is 1⅞", maximum thickness is about 3/16".

All of these artifacts were found in pits of the Ceramic-Agricultural period. The pit containing the pipe may have been a burial. Badly decayed bones found in the pit were identified as a "Possible part of a radius or ulna of a small or immature person." Other evidence in the pit also indicated a possible ceremonial burial.

Nantucket, Mass.
May 2, 1963

RIDDLE OF THE STONE BEEHIVES

Frederick J. Pohl

The woodlands of North America were filled with Indians, as many as could be supported by an economy based chiefly on hunting and fishing. The English Colonists, bringing in extensive agriculture, were eventually to outnumber the savages.

The Plymouth Colony might not have succeeded in getting started had it not entered a temporary vacuum caused by plague which had decimated the local tribe. That colony had its first armed encounter with Indians, the Nausits, on December 8, 1620, and thereafter, all the colonists in Massachusetts, Rhode Island, Connecticut, and New Hampshire lived in a permanent state of alert; often actual warfare with the savages for at least seventy years.

In addition to incidents of violence on both sides, reasons for enmity were quarrels over white men's cattle getting into Indian corn patches, and the white men's damming of streams and stopping of fish. The basic cause of bitterness was the white men's land encroachment, even where individual Indians or tribes had been persuaded to sell parcels. The land hunger of the English drove them ever further among the Indians, to whom a deed from the king or from an Adventurers' Company in London meant nothing. There seemed to be no solution to the problem except slaughter aimed at extermination. In spite of many local peace treaties, the relentless pressure of land seizure by the whites and their selling of firewater and firearms to the savages made surprise attacks, massacres, and war, inevitable.

Security for the colonists was never obtained outside of the largest towns until after the end of the century. Even so, New England was lucky compared with the Virginia Colony, where in 1622 in outlying settlements, 347 men, women, and children were massacred one midday by supposedly friendly savages, and where twenty-two years later, 500 were slain in one day. The atrocities of the Pequot War lasted four years and ended in 1637 in a battle at Groton, Connecticut, in which 800 Pequots were killed in one hour. Another four years of conflict was called Kieft's War, in which the Dutch of New Amsterdam attacked the Mohawks and the tribes on Long Island, massacred 180 Indians at Greenwich, Connecticut, and by 1647 had killed 1600 Indians. Thereafter, the Indians could not be expected to discriminate between the various nationalities of white invaders, and the neighboring English colonists were in greater danger than ever. King Philip's War, which broke out in 1675 and lasted 14 gory months, ravaged New England (Fig. 15). It killed one out of ten adult males in Massachusetts and Rhode Island, and almost as many in Connecticut. The destruction of houses in the Pequot and King Philip's wars tells a story:

"No Houses Left Standing" — Narragansett, Potuxit, Deerfield.
"Only One House Left Standing" — Warwick.
"One or Two" houses left — Wrentham, Nashaway, Swansea.
Only "Two or Three" left — Marlboro.
"Greater Part Destroyed" — Rehoboth, Taunton, Springfield, Scituate, Lancaster, Brookfield, Northampton.
"Many Houses Burned" — Sudbury.
"Much Ruined" — Hadley, Hatfield, Chelmsford, Westfield.

Suffered "Calamities" — Medford, Worcester, Mendon, Groton, Weymouth, Wrentham, Andover, Bridgewater.

Nearly all Dutch farms had been destroyed in Kieft's War, and many New England farms were destroyed in the Pequot and King Philip's Wars.

Indian fighting tended to unite the various colonists. It was highly selective as to human types for mental alertness and physical fitness, and it developed a breed of courage such as few cultures have known. Terrible deaths awaited any males who were captured. In addition to being scalped, they were likely to be skinned alive, slowly carved to pieces, and torture-roasted. There was no relief from terror in outlying settlements and not even in the towns, except perhaps in Boston. It is interesting to see by what housing and other constructions the Colonists sought to defend themselves.

Today, we think of "architecture" as building for the purposes of civil life, which, in early colonial times, would have meant in towns. We read of "English" houses in Boston and other centers. Such houses were built only where there were sawmills to make boards. Most houses in the fortified towns were stave-constructed; that is, their walls were half-piles or hewn timbers planted vertically, like the walls of palisades. The Norse sagas tell us that in the early 11th century Karlsefni erected a palisade around Leif Erikson's house in Vineland, and if we can accept the evidence of an aerial photograph taken before the probable site (the highest ground on the shore of Follins Pond on Cape Cod) was

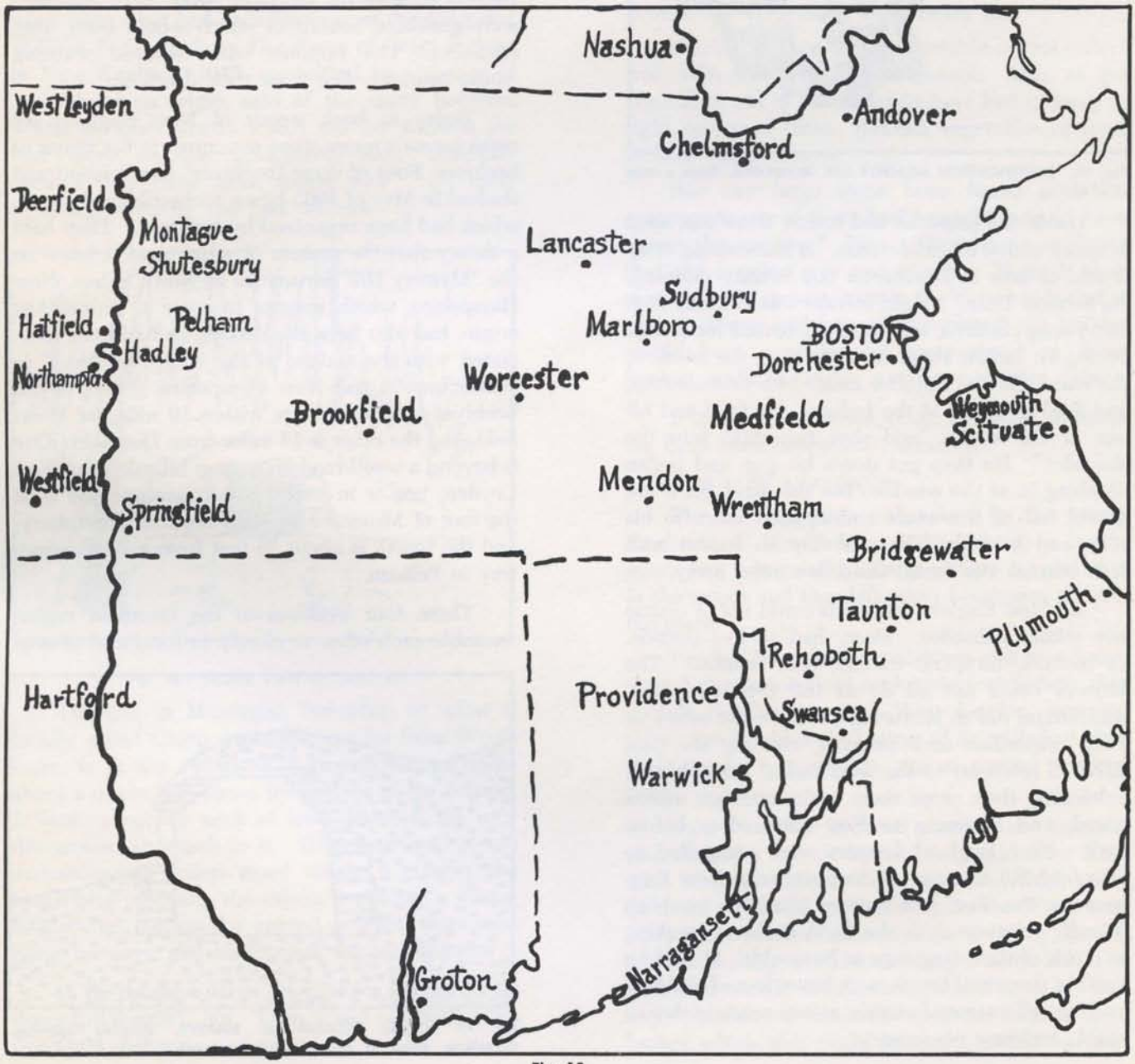

Fig. 15.

bull-dozed, Karlsefni's palisade was an oval. Post-Columbian maps show oval or rectangular palisades around rows of houses of stave construction (Fig. 16), as the "means of fortifying against the Mohawks." Each house had a central fireplace, with a hole in the thatched roof for the escape of smoke. For the first several decades the New England Colonists knew nothing of cabins with horizontally-laid logs, until they learned from the Swedes on the Delaware how to build them.

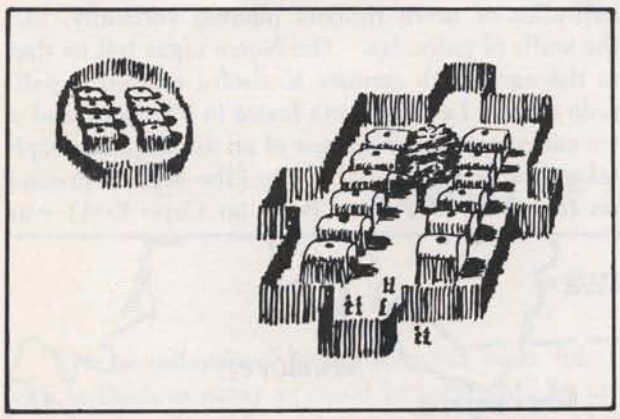

Fig. 16. FORTIFICATION AGAINST THE MOHAWKS, from a map of 1642.

Inside the palisades and towns, there was need of quick action in self-defense. A hair-raising story is told of how in Dorchester one Sunday morning, "in Sermon Time," a maid servant was at home with two young children, and the door barred for safety. Seeing an Indian about to come in at the window, the maid put the children under two brass kettles, and fired a musket at the Indian. He fired and hit one of the kettles "and shot the child into the shoulder." He then put down his gun and began climbing in at the window, but the maid got a fire shovel full of live coals and applied them to his face, and he fled. The next day an Indian with face burned was found dead five miles away.

All New England Colonists could not of course live within palisades. Many had to live outside, as hunters, trappers, traders, and farmers. The farmers could not all do as the Dutch of New Amsterdam did in venturing out from the safety of Fort Amsterdam each morning, crossing the East River in rowboats to the west end of Long Island, cultivating their crops there under constant armed guard, and returning to Fort Amsterdam before dark. New England farmers were compelled to take frightful chances. A lone settler in New England in the first half-century tried to establish friendly relations with the local Indians, speaking as much of their language as he could. At best he lived in perpetual terror, with his wife and children and himself potential victims at any moment day or night; he knew no security.

His dwelling was a half-cellar or hole in the ground about 4 feet deep with the excavated dirt built up in a wall for another two feet. Poles across the top supported tree boughs, moss, or straw thatch. Such a dwelling could not be defended. Indians could easily break a hole in the thatch and drop in some burning boughs and smoke the family out.

It may shock some Americans to learn that many of their boasted ancestors lived in holes in the ground, but in their so doing, those ancestors were the more heroic. In any one region, the first outlying dwelling to be attacked without warning had no survivors, unless by lucky chance one of the family was not at home. If there was such a survivor he would run and warn other settlers that Indians were on the rampage. More usual warnings were gunshots, sounds of which would carry long distances. The families who received warning would promptly flee from their dwellings.

Today in back woods of New England we come across strange stone structures in the shape of beehives. Four of these "beehives" were visited and studied in May of 1963 by an archaeological group, which had been organized by two men. They held a theory that the makers of what tourists know as the "Mystery Hill" structures at North Salem, New Hampshire, which suggest to some a Bronze-Age origin, had also been the makers, or had been associated with the makers of the many "beehives" in Massachusetts and New Hampshire. Three of the beehives we studied are within 10 miles of Deerfield, and the other is 14 miles from Deerfield. One is beyond a wood road on a steep hillside near West Leyden; one is in Montague Township; one is at the foot of Mineral Mountain Road in Shutesbury; and the fourth is about 75 feet from a small cemetery in Pelham.

These four beehives in the Deerfield region resemble each other so closely in form and dimen-

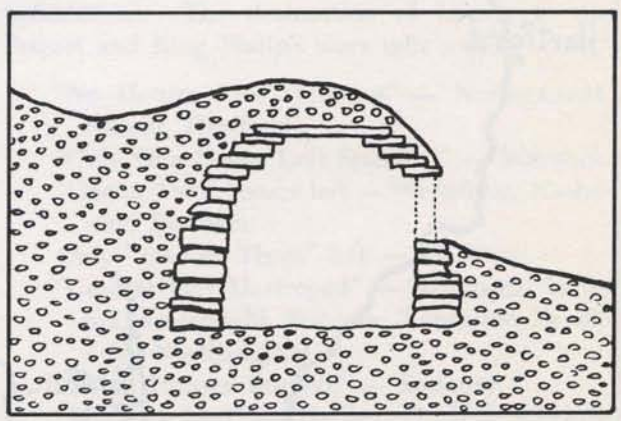

Fig. 17. CROSS SECTION OF BEEHIVE, showing opening, corbelling, slope of ground, and hummock.

sions that a description of any one of them serves for the other three. All four obviously were built for the same purpose, whatever that purpose was. Each is a round corbelled stone structure two-thirds underground (Fig. 17). It is about 5 to 5½ feet in diameter inside, and 5½ to 6 feet high inside. There is an earthen floor, but on top is a capstone which is covered with about a foot and a half of earth. The entrance is an opening almost two feet square, the bottom of which is at ground level and is about 3½ to 4 feet above the floor. The entrance is flanked by vertical stone walls topped with a lintel that extends out enough to shelter the interior from rain (Fig. 18). The beehive is built into a hillside, with the entrance facing downhill. The earth above the capstone makes only a slight hummock. Each beehive is at some little distance, in the order of 200 yards from what had been the nearest dwelling site. William B. Goodwin in *The Ruins of Great Ireland in New England*, 1946, committed to a theory of pre-Columbian origin, said of the many beehives which he knew about, which did not include the four more recently discovered, that "curiously enough they have been found near . . . early dwellings used by the first settlers."

Fig. 18. FRONT VIEW OF BEEHIVE.

The one in Montague Township, at what is locally called Camp Anderson, not far from Wyola Lake, is at the center of a swamp, on a hillock about a dozen feet above the surface of the swamp. It faces a narrow neck of land which is the only dry-ground approach to it. While one man of our archaeological group stood inside it, facing the breast-high opening, the others, including a young Englishman, sat on the ground nearby. Our questions, answers, and conclusions ran as follows:

Is the beehive large enough for a man to lie down full length? No. Then it was not built as an overnight shelter.

Was there ever any fireplace in it? No. No charcoal has been found inside or near it.

How many persons could stand inside? Six or eight without touching each other, and ten to fifteen jammed close.

Could a man handily shoot a musket from inside? Certainly. This breast-high ground level makes a perfect rest for a musket held by a man inside. Then it could have been defended in colonial times? Yes indeed.

In the Bronze-Age, what weapon would a man have had for defense? A bow and arrow. Not a crossbow? No. The crossbow was a later invention.

Could a man handily shoot a bow and arrow from inside? Positively not. Then it was not a Bronze-Age structure? Apparently not.

Could this have been a vegetable or root cellar? No! Why not? Not large enough. Also, to get vegetables out of it one would have had to jump in right on top of them. Besides, vegetables or roots in here would freeze.

Has any large stone been found near the entrance to any of these beehives which could have closed the opening? No. There is no evidence that the opening was ever closed. There is such carefulness of construction in the stone work that if such a closing had been contemplated, the builder would have provided an arrangement in these flanking walls to receive a stone or wooden door.

If it was never closed, could so visible an opening have been concealed? Readily.

How? By a brushpile.

The next question was asked by the young Englishman: Wouldn't an Indian notice a brushpile? Not particularly. Early settlers cut clearings in the woods and they left many brushpiles all over the place.

Frank Glynn, former president and now secretary of the Connecticut Archaeological Society, dug outside the beehive near West Leyden, exposing the trench in which the bottom of its walls had been laid, and he estimated its age as several hundred years.

Soon after that weekend meeting, my imagination shaped a theory, by which typical New England beehives such as have been described, could be dated within 25 or 30 years after the Mayflower. They were perfect hideaways for a family, fleeing from a dwelling which could not be defended. The wife of the back-woods settler would keep her cutlery, pewter and her most precious objects in a basket which she could instantly snatch up, and

when a warning signal came that Indians were approaching she could swiftly start with her children for the hideaway. The Indians, finding the early dugout dwelling deserted, would steal food and anything that appealed to them, but they could not destroy much of the dwelling itself, for the earth walls could not be destroyed by fire. Only the roof would burn, and the settler could rebuild the roof in one day. There was no point in attempting to defend the dwelling. As for the hideaway, the Indians knew better than to look for it, for from experience they knew that it would be so positioned that just before it was found, its defenders would be able to kill several braves at point-blank range. The use of such hideaways ceased, no doubt, as soon as New Englanders learned to build log houses, sometime before the middle of the 17th century; log cabins were defensible.

A college professor friend of mine bought a house for his retirement some four miles north of Canaan, New Hampshire, and since the clapboards on its front needed replacement, he had them stripped off, and so discovered that he owned a log fort. The walls of his house are adz-squared logs resting horizontally on each other. He now knows why every window in the house is of slightly different width, since all had been cut through the log walls. In the middle of the cellar there is a vaulted stone room, in which the children could be safe when bullets flew. Such a house was not only worth defending, but could be defended effectively. Its occupants had no need of a hideaway, but could stay within it and shoot at Indians, who came to attack.

Several quotations from *The History of Canaan, New Hampshire* by William Allen Wallace, 1910, seem pertinent as a fitting climax to this discussion.

1) "In all western New Hampshire but four towns had been incorporated by 1766. In each of these towns a block house or fort had been erected, and they attained prominence from the fact that being on the frontier they were often exposed to attack by the Indians from Canada."

2) The first settler at the site of Canaan, John Scofield, came in 1766 from Norwich, Connecticut, with his wife and four children. He was 51 years of age, "not a very social man; liked to have his neighbors so far away that when he visited them they would be glad to see him." In the wild woods of Canaan "he found space to satisfy his most lonely desires." There "he erected his first brush house . . . and afterwards built one of logs."

3) The second settler at Canaan, also from Norwich, was Thomas Miner, 23 years of age. He said he "came away from Connecticut because there was too many people and too much law." He wanted to find an uncrowded place where, as he picturesquely said: " 'Taint unlawful for a man to say 'damn it,' if he's strongly tempted'." Traveling with his wife, a son, a horse, and a cow, he stopped to rest where there was "not a house in sight, no smoke, not a clearing, no sign of civilization."

His wife said: " 'Thomas, the sun is getting low. Where shall we make a bed?' Thomas seized his ax, and in a short time had cleared away the brush and arranged the branches of the trees, so as to form a shelter from inclement weather. Then with flint and steel, he struck a fire, and while his wife mixed the coarse bread and baked it before the fire, he milked the cow, and they sat down to their first frugal meal."

The next day he went to recover the horse, which had retreated on the back trail, and when he returned, his wife said: "'Thomas, I think we are not alone here. While you were away I heard sounds resembling the chopping of an ax.' This implied a white man of course, so he discharged his rifle. This was soon answered by the report of another gun." He and Scofield then met and "resolved to be neighbors." If Scofield did not disapprove of saying "Damn it" under irresistible temptation, we can see from this how some 18th century New Englanders, at the price of frontier dangers, were finding unaccustomed freedom.

Brooklyn, New York
August 29, 1963